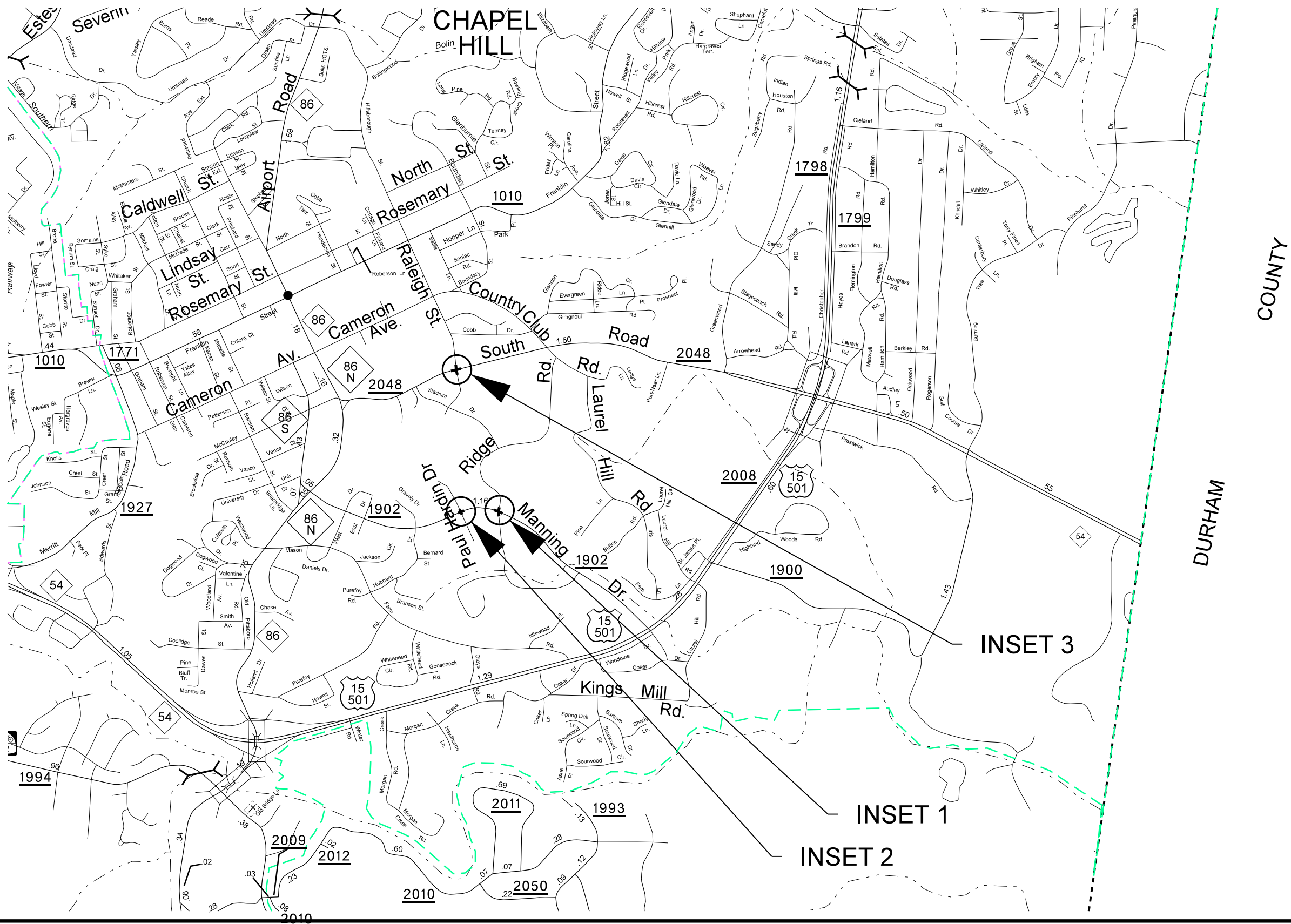


# ORANGE COUNTY



COUNTY

DURHAM

INSET 3

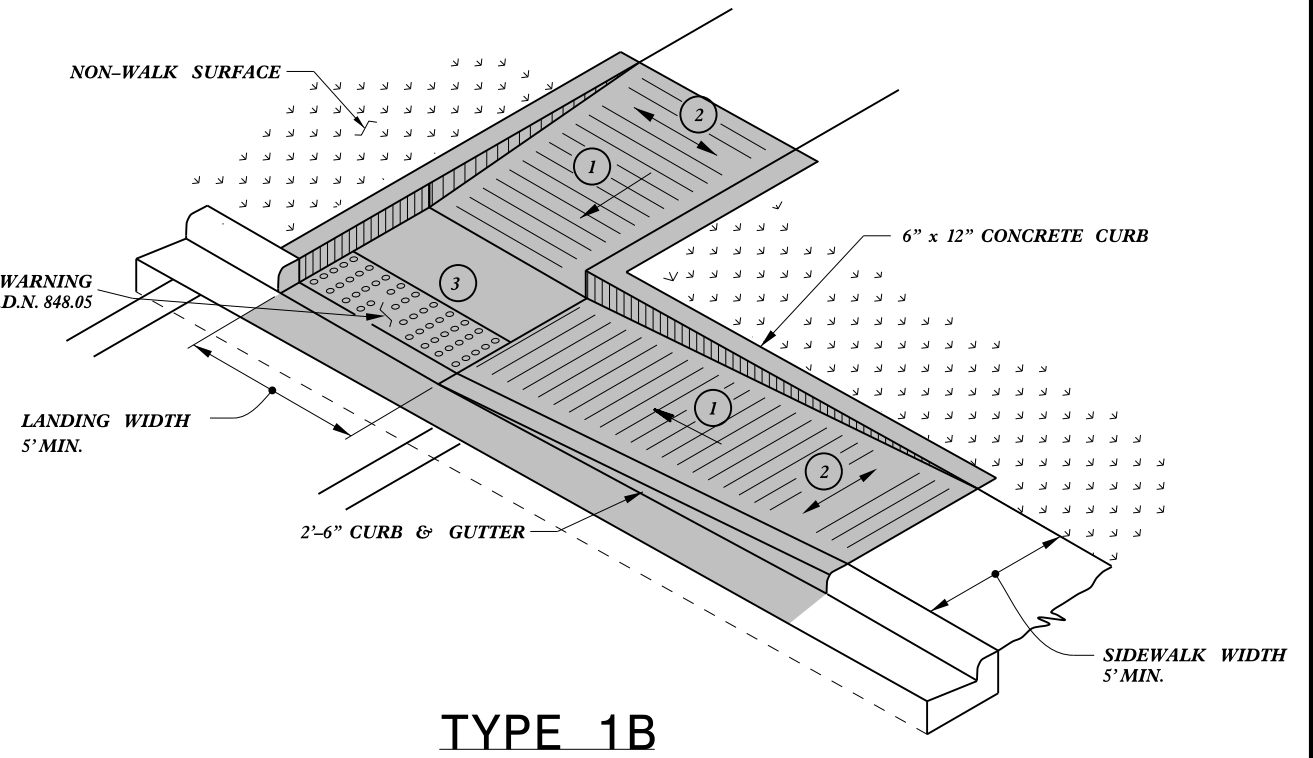
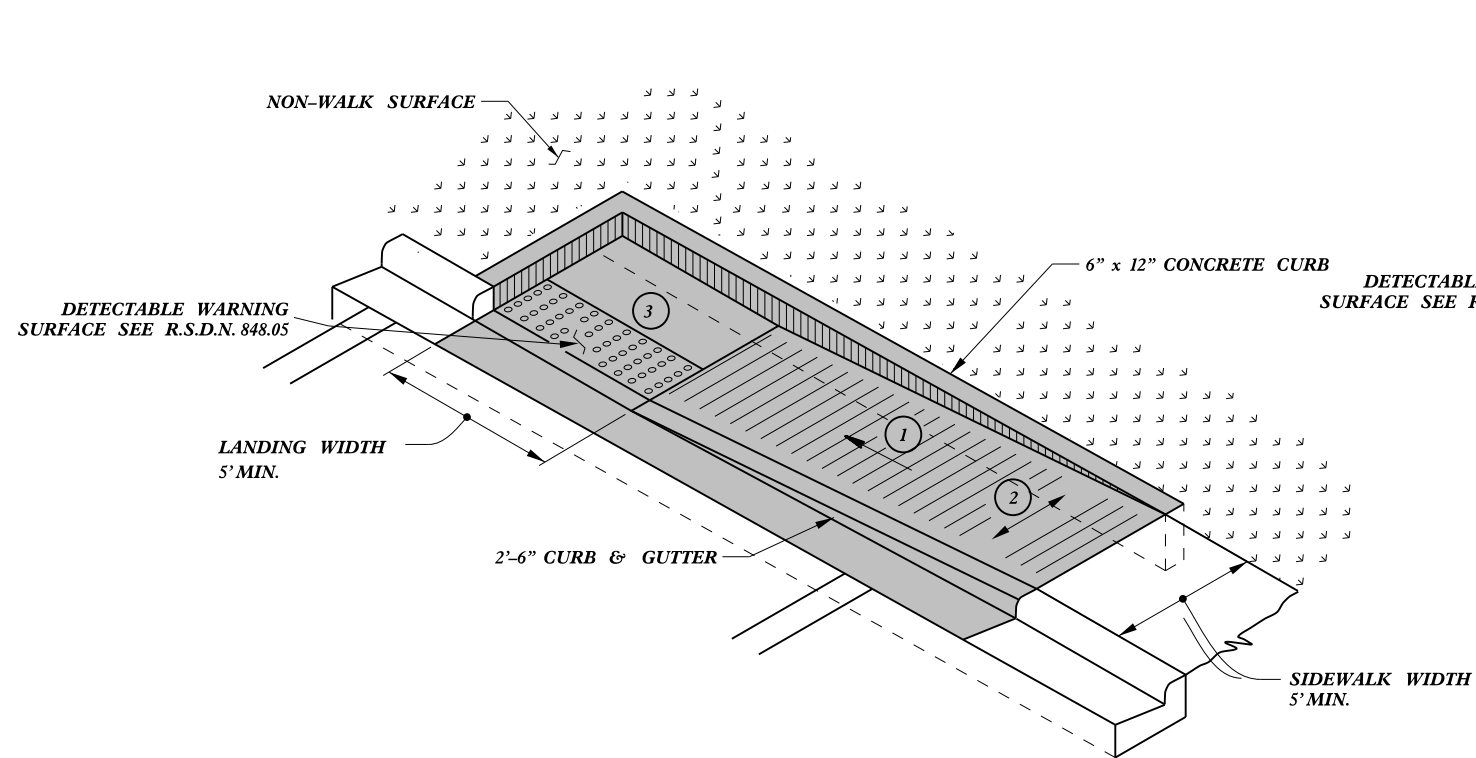
INSET 1

INSET 2

5/14/99

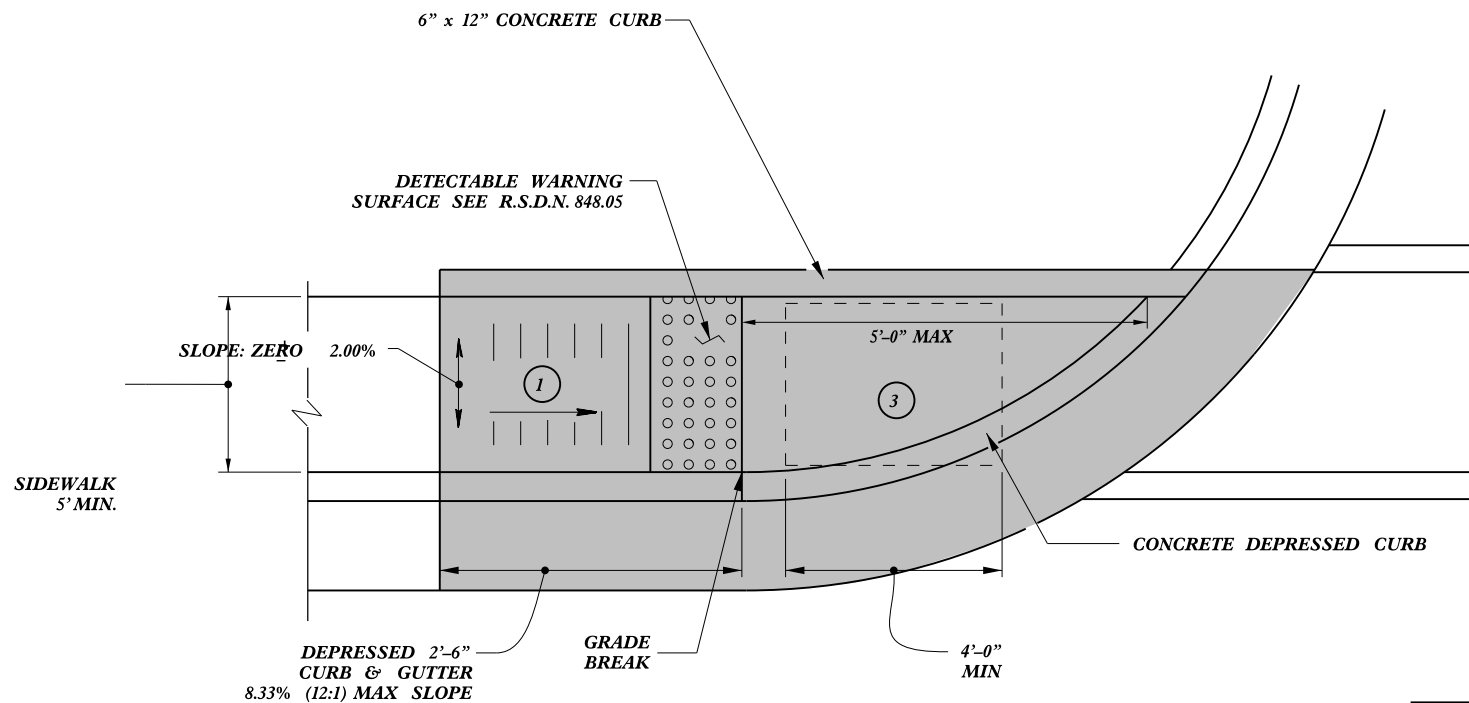
5/14/99

|                       |           |
|-----------------------|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W5707A                | 2         |



PAY LIMITS FOR 1 CURB RAMP

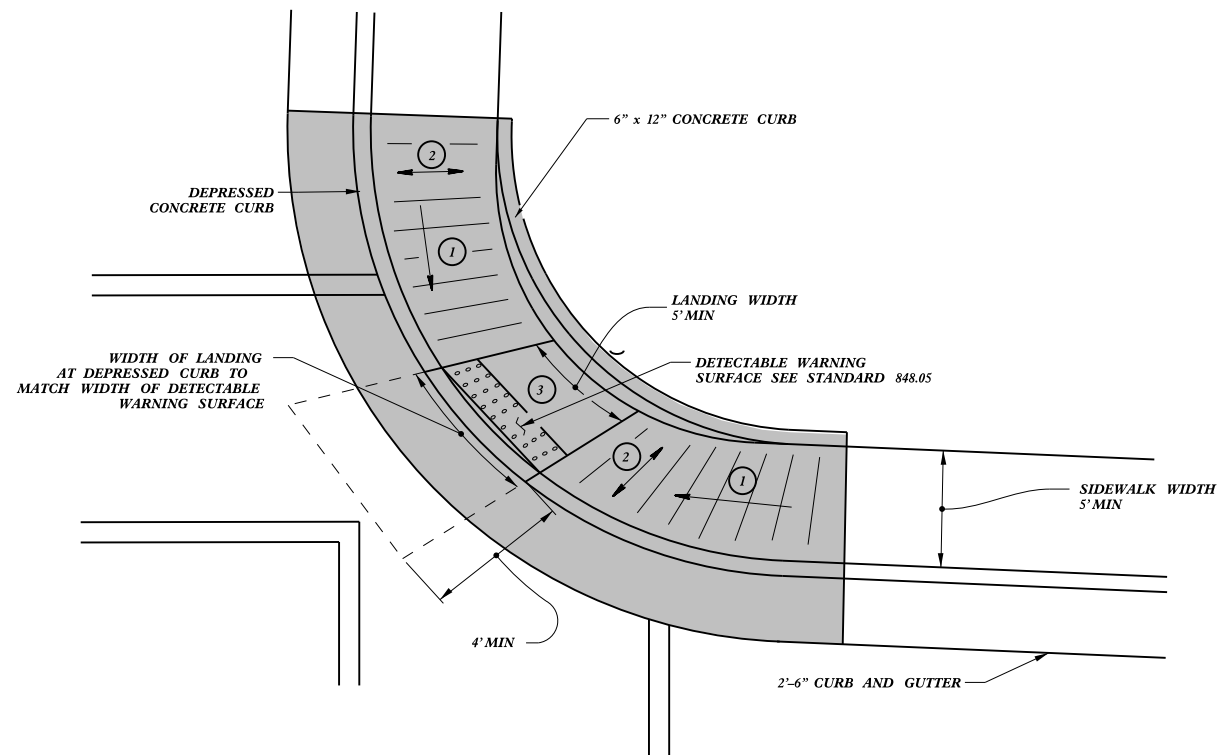
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



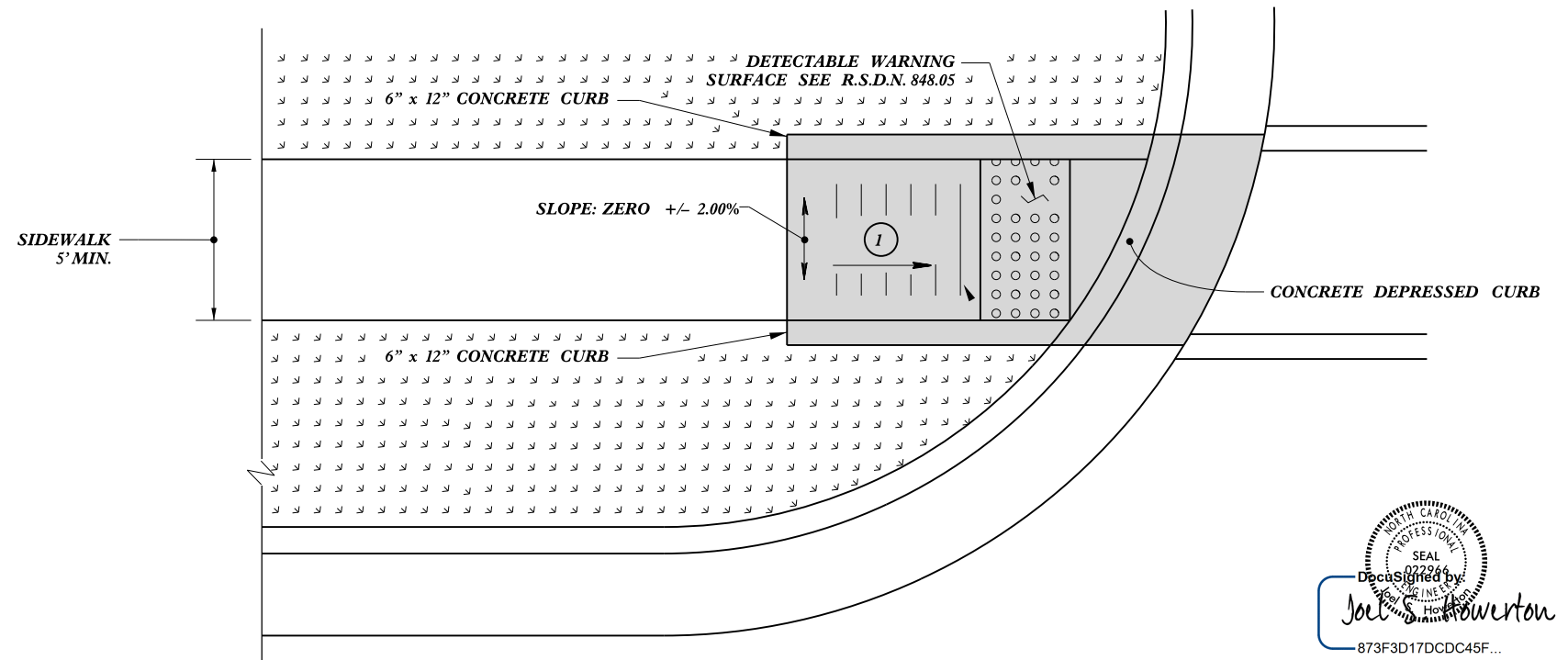
DocuSign by  
Joel S. Howerton  
873F3D17DCDC45F...  
5/3/2017

|  |                  |
|--|------------------|
| CONTRACT STANDARDS<br>AND DEVELOPMENT UNIT       |                  |
| Office 919-707-6950                              | FAX 919-250-4119 |
| CURB RAMPS                                       |                  |
| Directional Ramps                                |                  |
| ORIGINAL BY: J.S. HOWERTON                       | DATE: 7/7/11     |
| MODIFIED BY:                                     | DATE:            |
| CHECKED BY:                                      | DATE:            |
| FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg |                  |

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



TYPE 2B



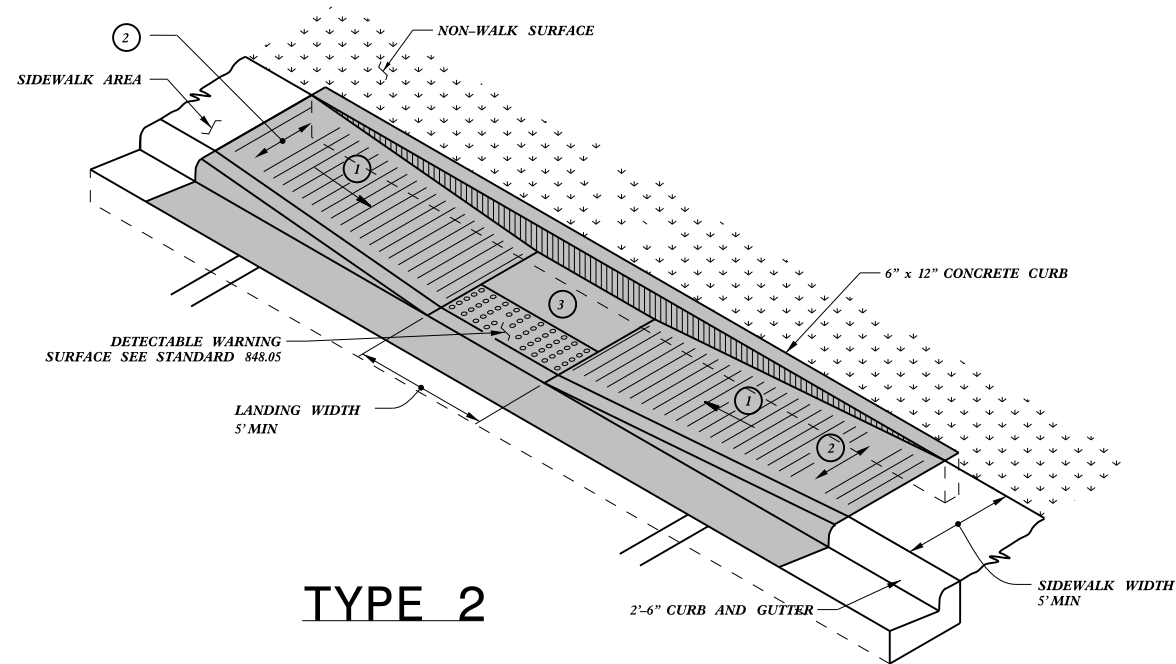
TYPE 1 Modified

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

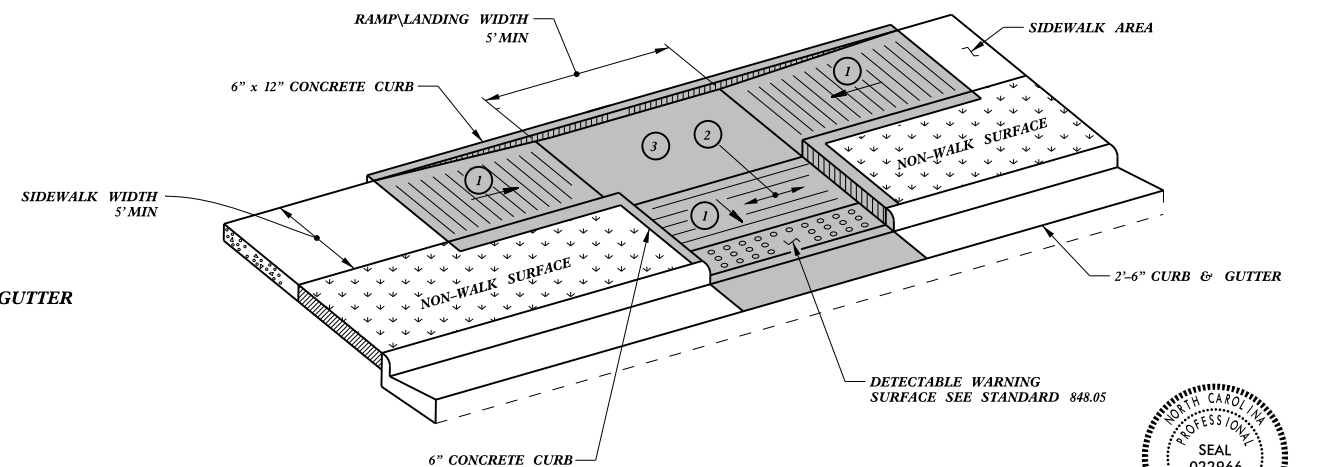
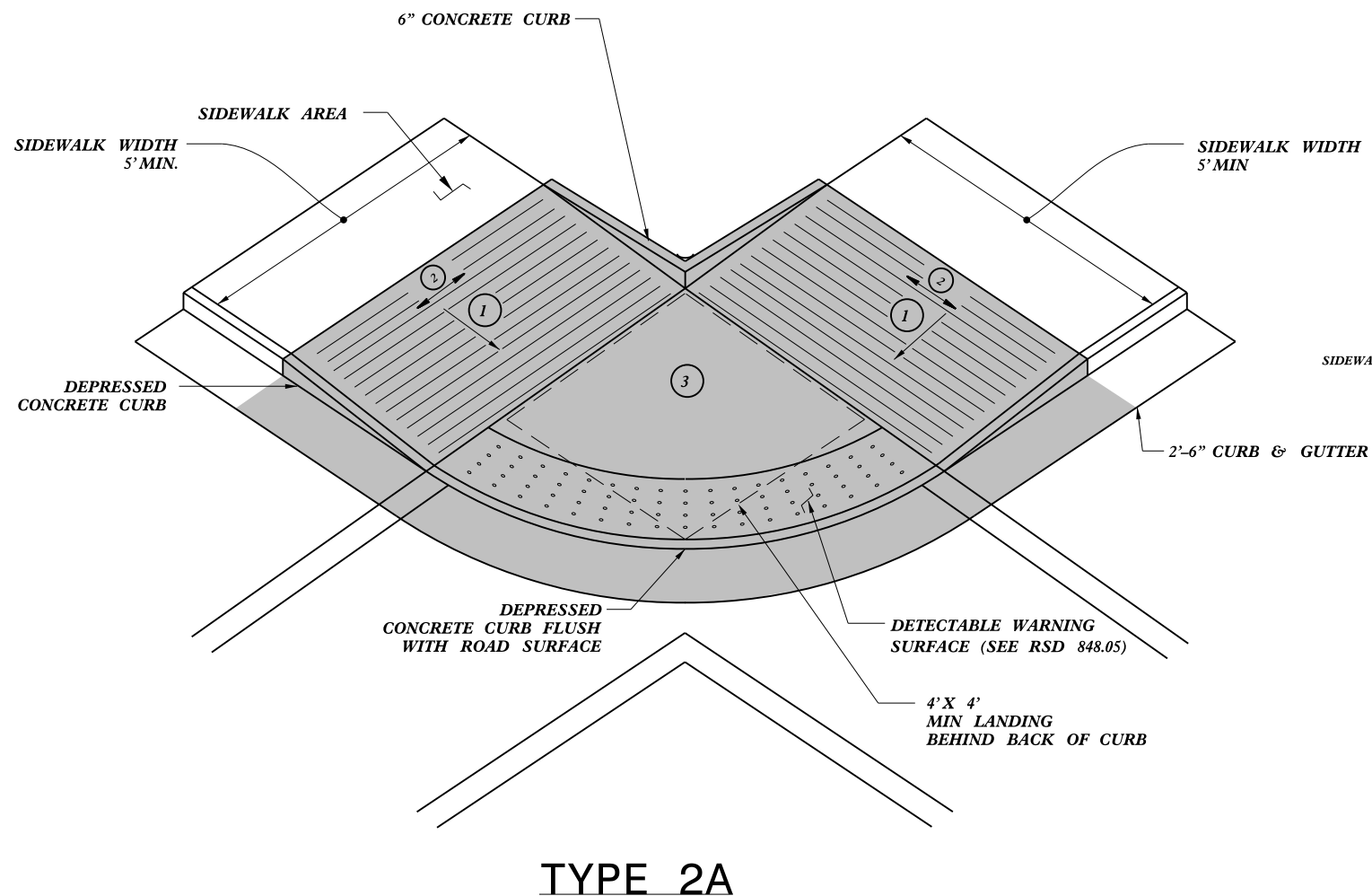
Seal and signature of Joel S. Howerton, Professional Engineer, dated 5/3/2017.

|  |              |
|--|--------------|
| CONTRACT STANDARDS<br>AND DEVELOPMENT UNIT<br>Office 919-707-6950 FAX 919-250-4119 |              |
| CURB RAMPS<br>Directional Ramps  |              |
| ORIGINAL BY: J.S. HOWERTON   | DATE: 7/7/11 |
| MODIFIED BY:   | DATE:        |
| CHECKED BY:  | DATE:        |
| FILE SPEC: sds/2012CurbRamp/CurbRampDetails.dwg                                    |              |



PAY LIMITS FOR 1 CURB RAMP

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



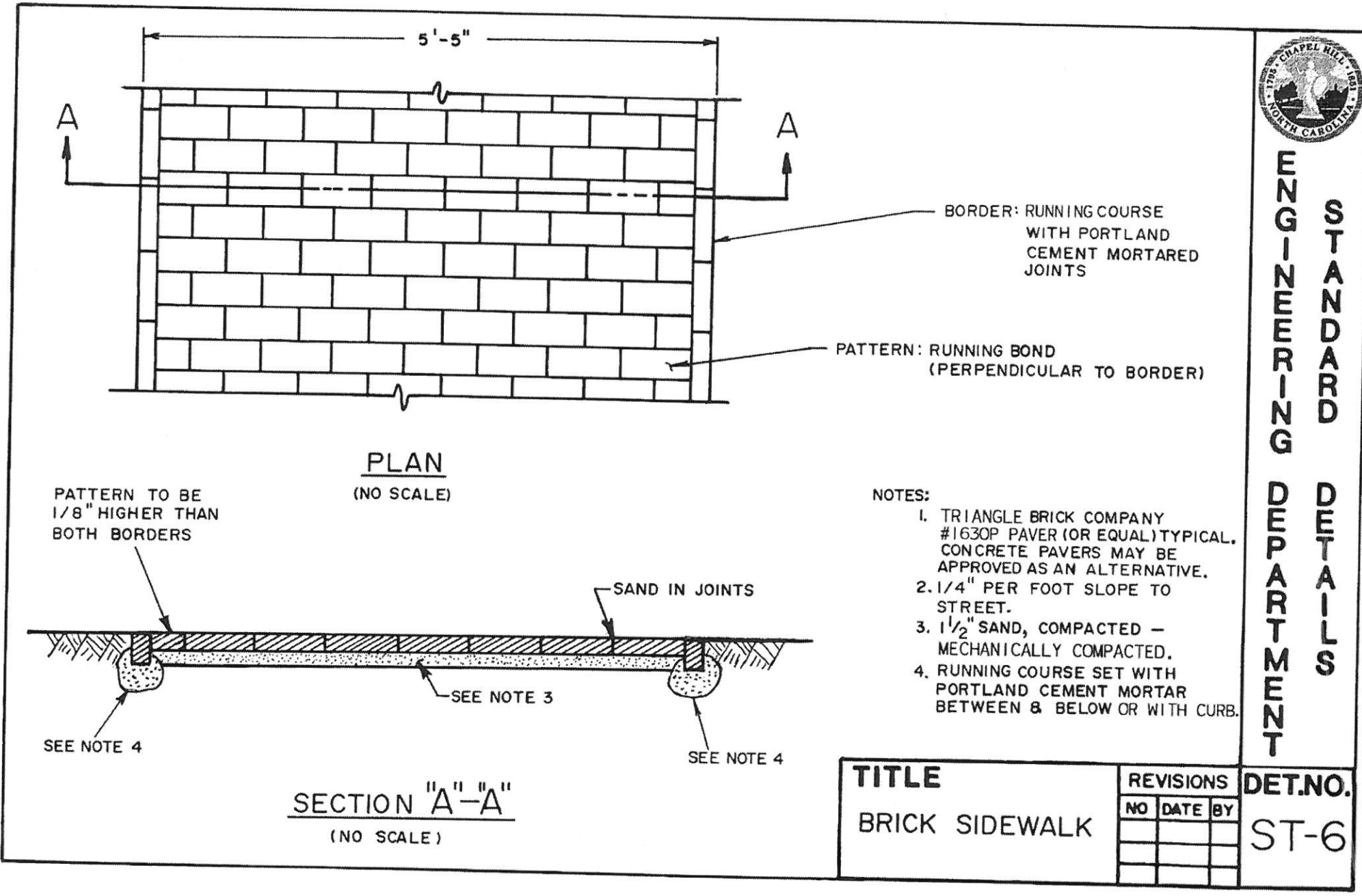
TYPE 3



Designed by  
Joel S. Howerton  
873F3D17DCDC45F...  
5/3/2017

|  |              |
|--|--------------|
| CONTRACT STANDARDS<br>AND DEVELOPMENT UNIT<br>Office 919-707-6950 FAX 919-250-4119 |              |
| CURB RAMPS<br>Parallel Ramps   |              |
| ORIGINAL BY: J.S. HOWERTON   | DATE: 7/7/11 |
| MODIFIED BY:   | DATE:        |
| CHECKED BY:  | DATE:        |
| FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg                                   |              |

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



This detail will be used in conjunction with Installing Brick Pavers

# INSET 1: SR 1902 (MANNING DR.) AT SKIPPER BOWLES RD. & RIDGE RD. – ORANGE COUNTY

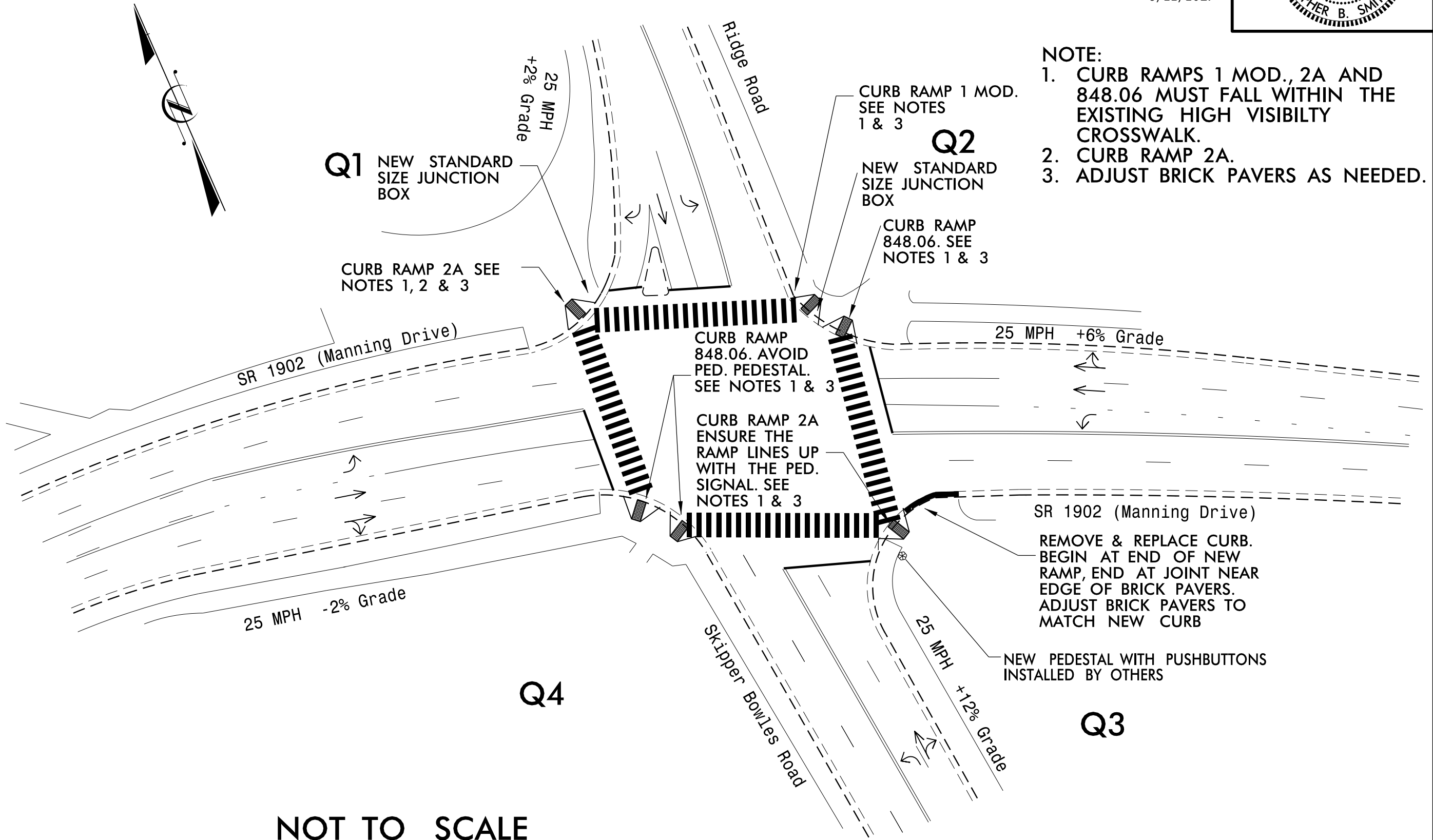
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| PROJECT REFERENCE NO.              | SHEET NO. |
| W-5707A                            | 4         |
| DIVISION DESIGN CONSTRUCT ENGINEER |           |

DocuSigned by:

*Chris Smitherman*

EA7926E3CDA44A...

5/22/2017

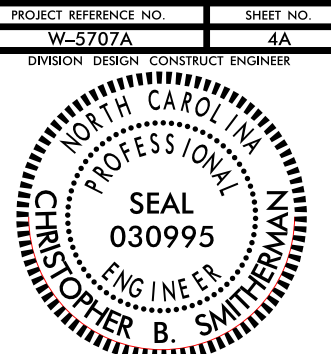


- NOTE:**
1. CURB RAMPS 1 MOD., 2A AND 848.06 MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.
  2. CURB RAMP 2A.
  3. ADJUST BRICK PAVERS AS NEEDED.

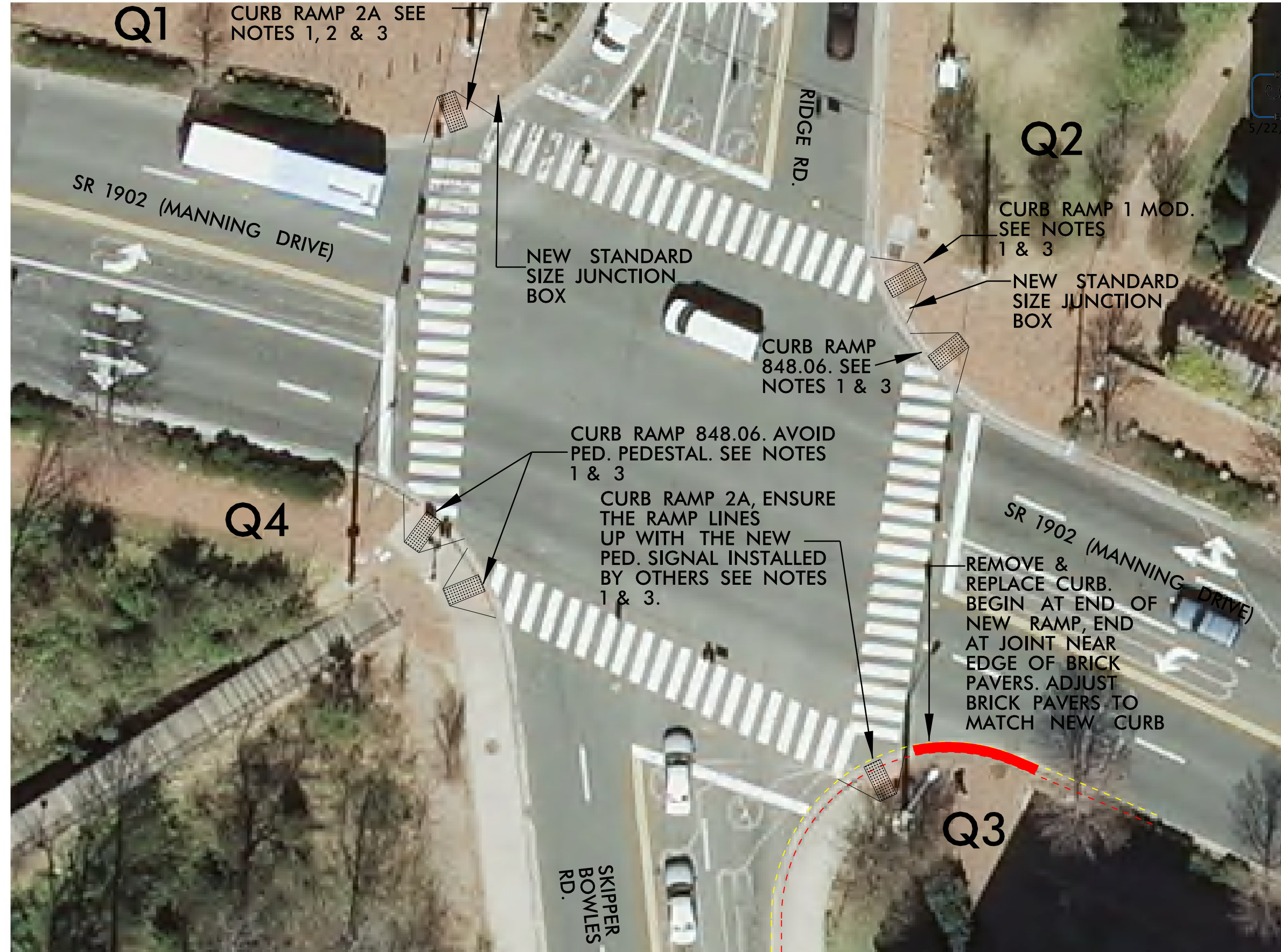
NOT TO SCALE

5/14/19

# INSET 1: SR 1902 (MANNING DR.) AT SKIPPER BOWLES RD. & RIDGE RD. – ORANGE COUNTY



Designed by:  
*Chris Smitherman*  
E:\326E3CDA446A...  
5/22/2017



- NOTE:
1. CURB RAMPS 1 MOD., 2A AND 848.06 MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.
  2. CURB RAMP 2A.
  3. ADJUST BRICK PAVERS AS NEEDED.

NOT  
TO  
SCALE



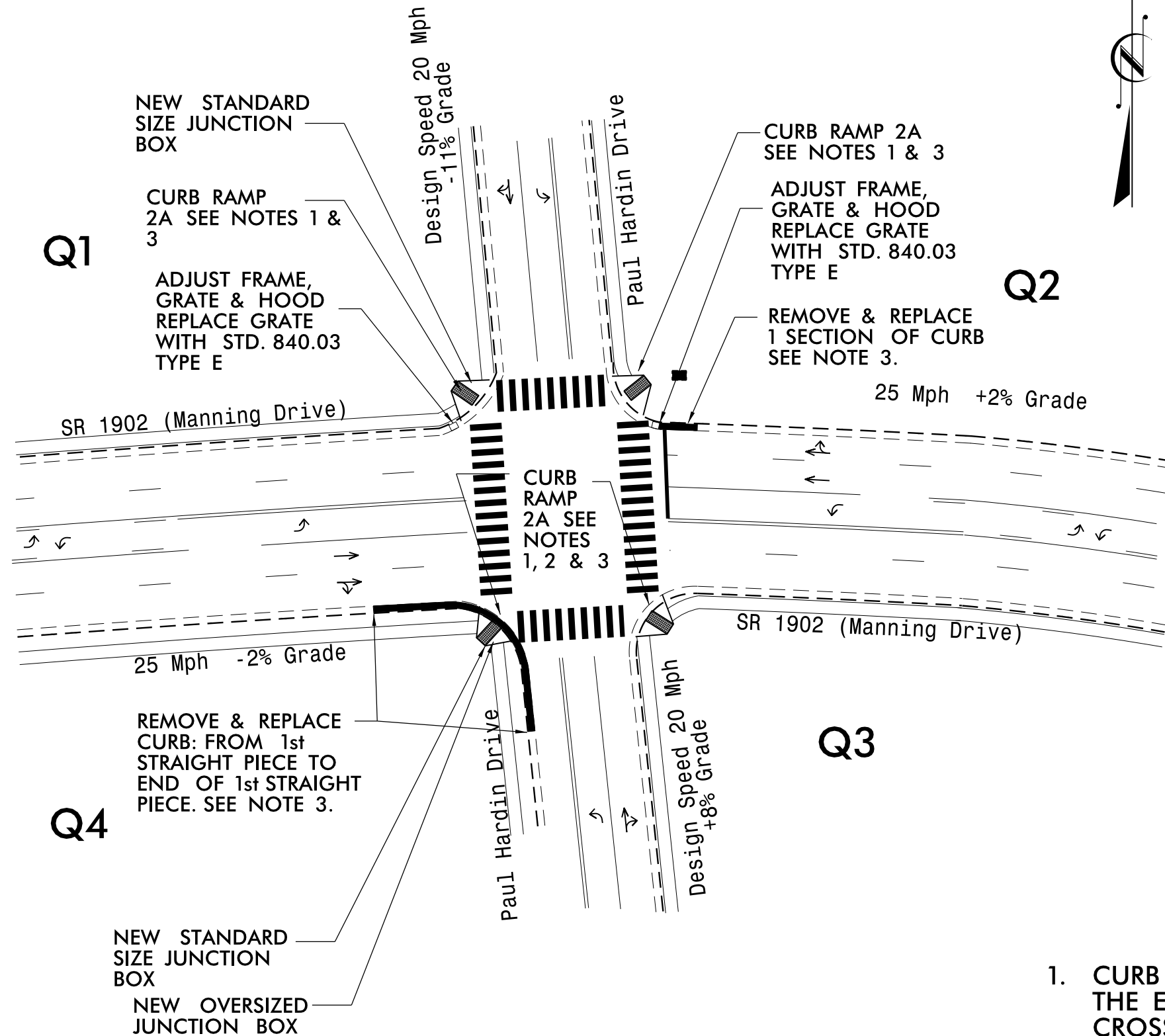
18-MAY-2017 13:20  
ide\w5707a\add\RAMPS\Roadway\Proj\W5707A\_Fdy\_PSH4A.dgn  
At 1576000278013

|                                    |           |
|------------------------------------|-----------|
| PROJECT REFERENCE NO.              | SHEET NO. |
| W-5707A                            | 5         |
| DIVISION DESIGN CONSTRUCT ENGINEER |           |

A circular professional engineer seal for Christopher B. Switherman, a Professional Engineer in North Carolina. The seal features the text "NORTH CAROLINA" at the top, "PROFESSIONAL" in the upper middle, "SEAL" in the center, "030995" below the seal number, "ENGINEER" in the lower middle, and "CHRISTOPHER B. SWITHERMAN" at the bottom. The entire seal is enclosed within a double-lined circular border with a dashed inner ring.

DocuSigned by:  
Chris Smitherman  
EA7926E3CDA446A...

5/22/2017



NOT TO SCALE

**NOTE:**

- 1. CURB RAMP 2A MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.**
- 2. CURB RAMP 2A.**
- 3. ADJUST BRICK PAVERS AS NEEDED.**

8-MAY-2017 13:16  
 : \*DDO#6-Division:ide#W5707A ADA RAMPS#Roadway#Proj#W5707A\_Rdy\_PSH5.dgn  
 : \*\*\*\*\*  
 : \*\*\*\*\*

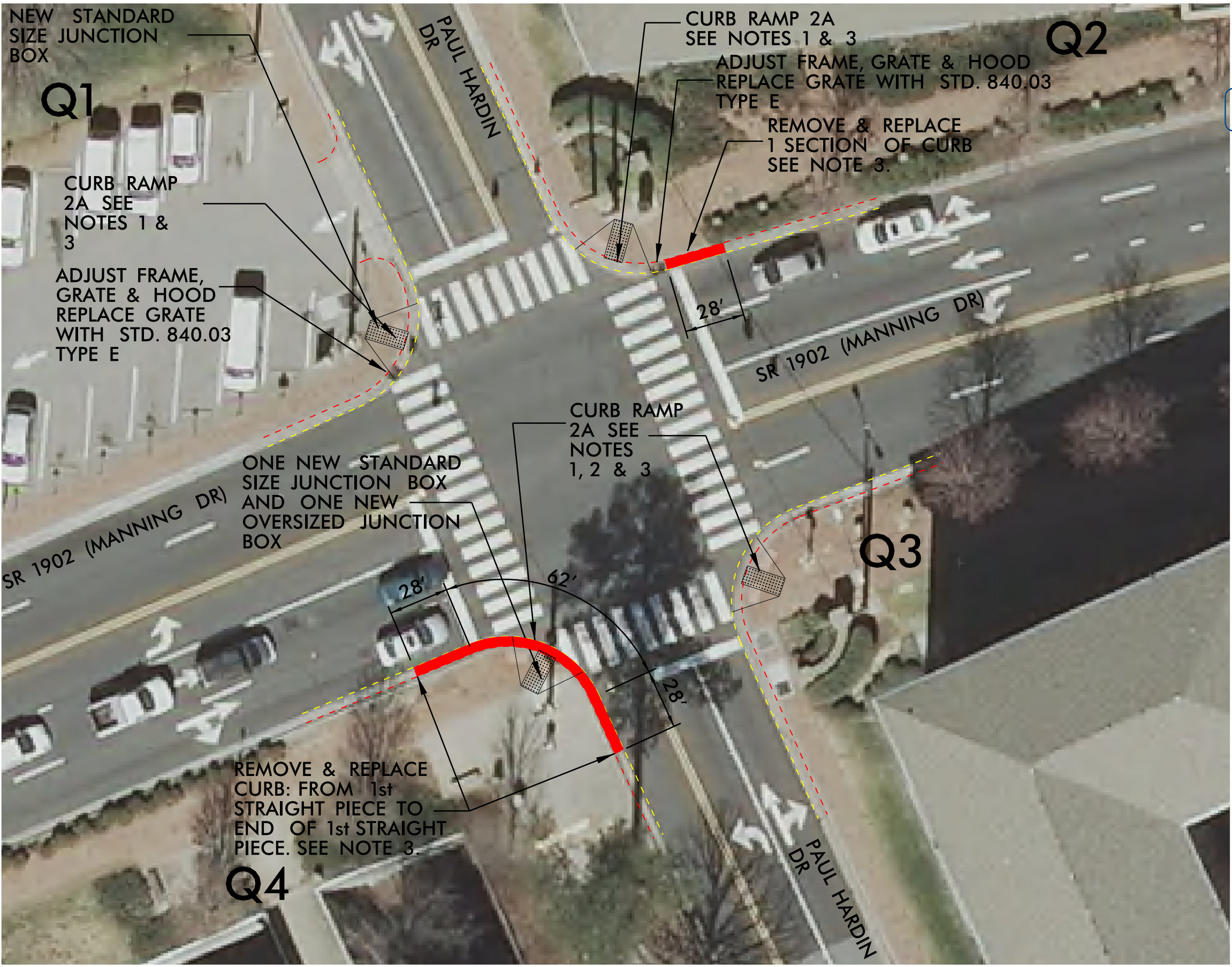
INSET 2: SR 1902 (MANNING DR.) AT PAUL HARDIN DR. –  
ORANGE COUNTY

|                                    |           |
|------------------------------------|-----------|
| PROJECT REFERENCE NO.              | SHEET NO. |
| W-5707A                            | 5A        |
| DIVISION DESIGN CONSTRUCT ENGINEER |           |

NORTH CAROLINA  
PROFESSIONAL  
SEAL  
030995  
ENGINEER  
CHRISTOPHER B. SMITHERMAN

DocuSigned by:  
Chris Smitherman  
EA7926E3CDA446A...  
5/22/2017

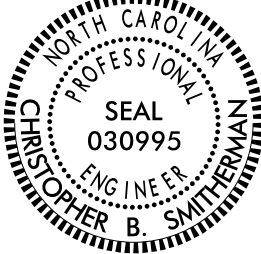
NOT  
TO  
SCALE



- NOTE:
1. CURB RAMP 2A MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.
  2. CURB RAMP 2A.
  3. ADJUST BRICK PAVERS AS NEEDED.

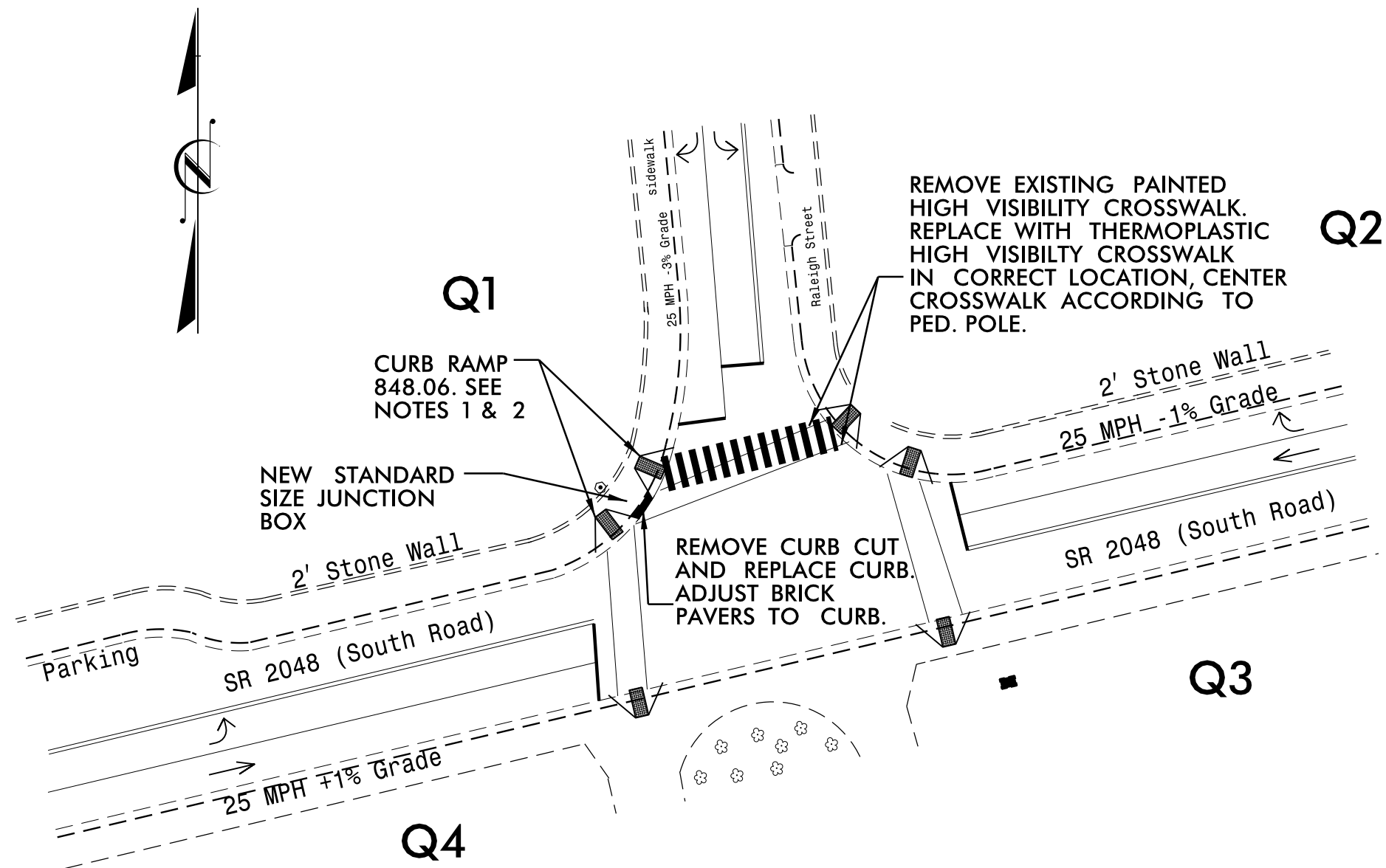
# INSET 3: SR 2048 (SOUTH RD.) AT RALEIGH ST. – ORANGE COUNTY

|                                    |           |
|------------------------------------|-----------|
| PROJECT REFERENCE NO.              | SHEET NO. |
| W-5707A                            | 6         |
| DIVISION DESIGN CONSTRUCT ENGINEER |           |



DocuSigned by:  
*Chris Smitherman*  
EA7926E3CDA446A...

5/22/2017



- NOTE:
1. 848.06 MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.
  2. ADJUST BRICK PAVERS AS NEEDED.

NOT TO SCALE

5/14/99

# INSET 3: SR 2048 (SOUTH RD.) AT RALEIGH ST. – ORANGE COUNTY

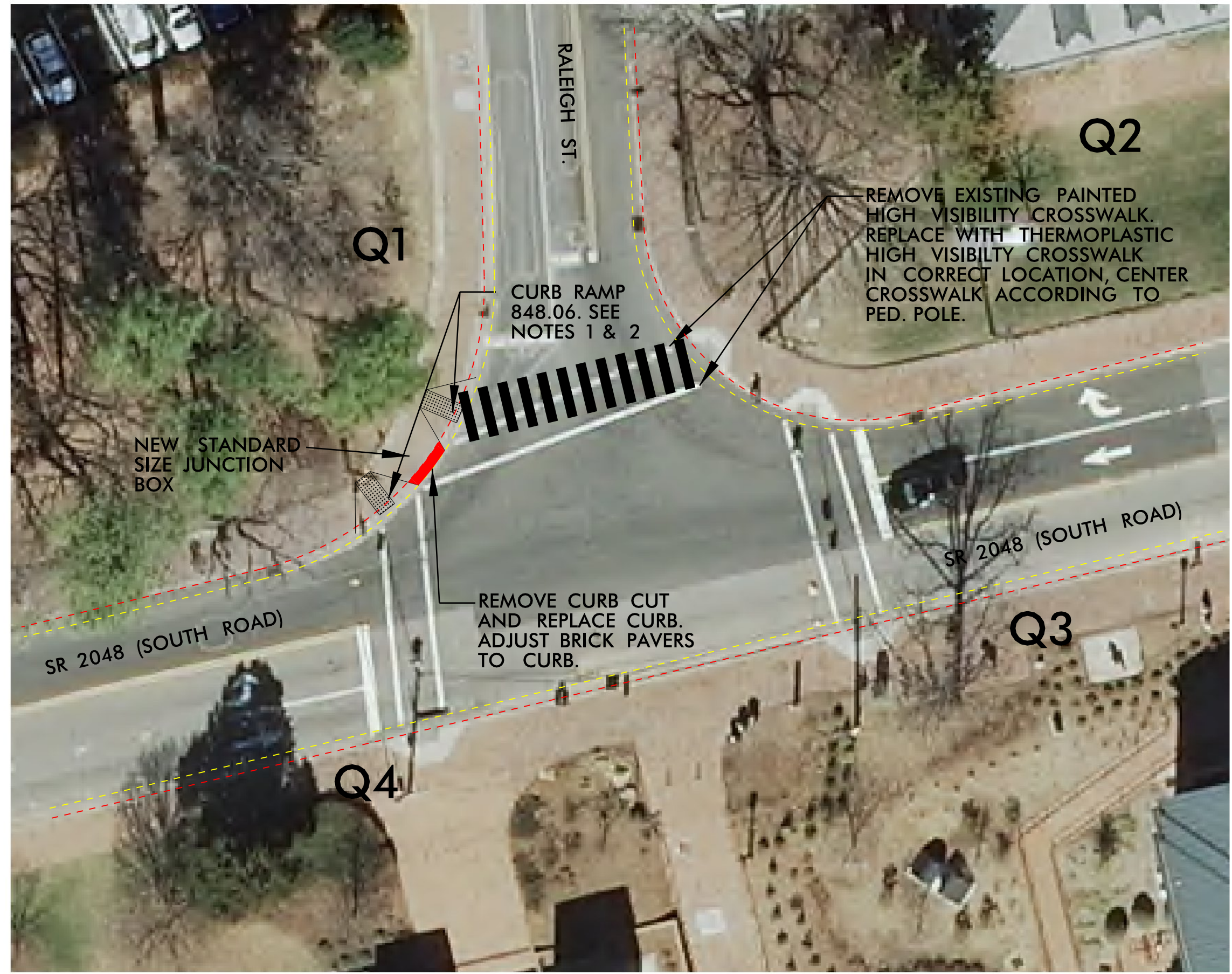
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| PROJECT REFERENCE NO.              | SHEET NO. |
| W-5707A                            | 6A        |
| DIVISION DESIGN CONSTRUCT ENGINEER |           |

NORTH CAROLINA  
PROFESSIONAL  
SEAL  
030995  
ENGINEER  
CHRISTOPHER B. SMITHERMAN

DocuSigned by:  
*Chris Smitherman*  
EA7926E3CDA446A...  
5/22/2017

**NOT  
TO  
SCALE**

- NOTE:
- 1. 848.06 MUST FALL WITHIN THE EXISTING HIGH VISIBILITY CROSSWALK.
  - 2. ADJUST BRICK PAVERS AS NEEDED.

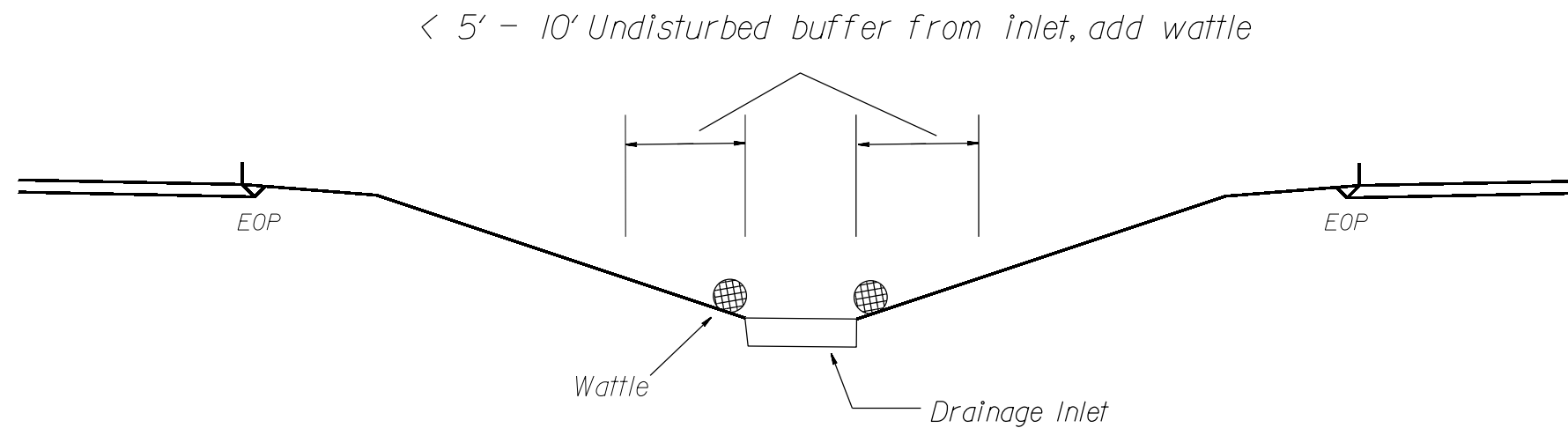
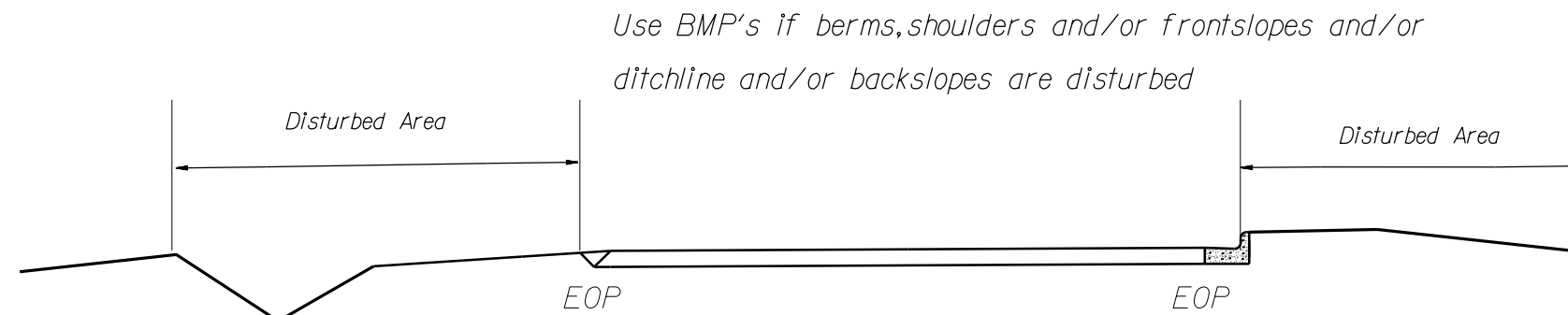
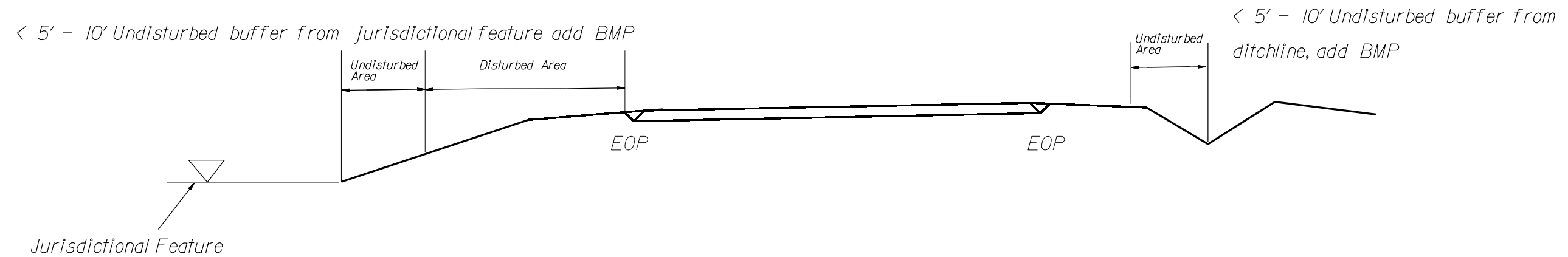
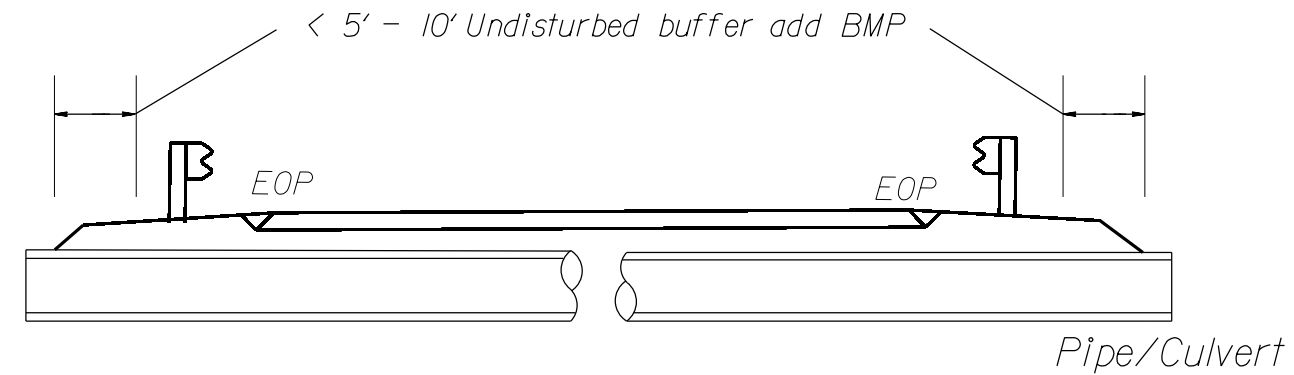


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10/1/2017 10:23:01 AM

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

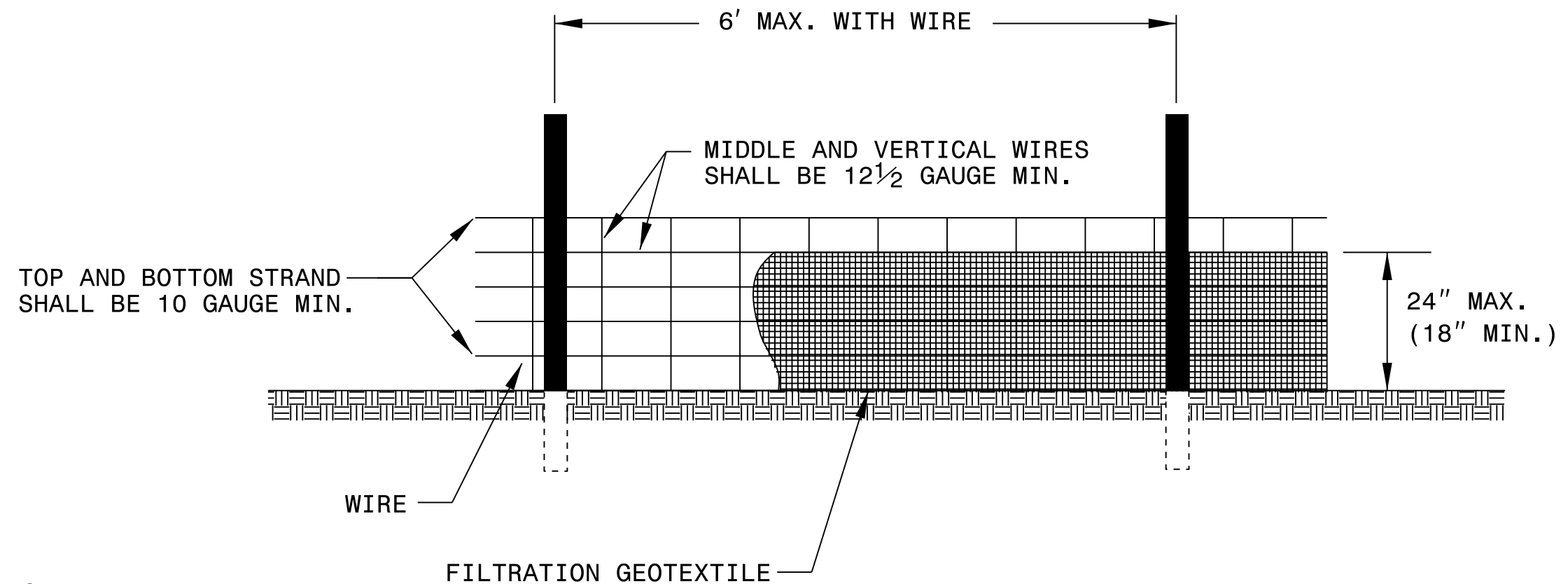
BMP Options: Wattle or Silt Fence

## EROSION CONTROL DETAIL



NOT TO SCALE

# REINFORCED TEMPORARY SILT FENCE DETAIL



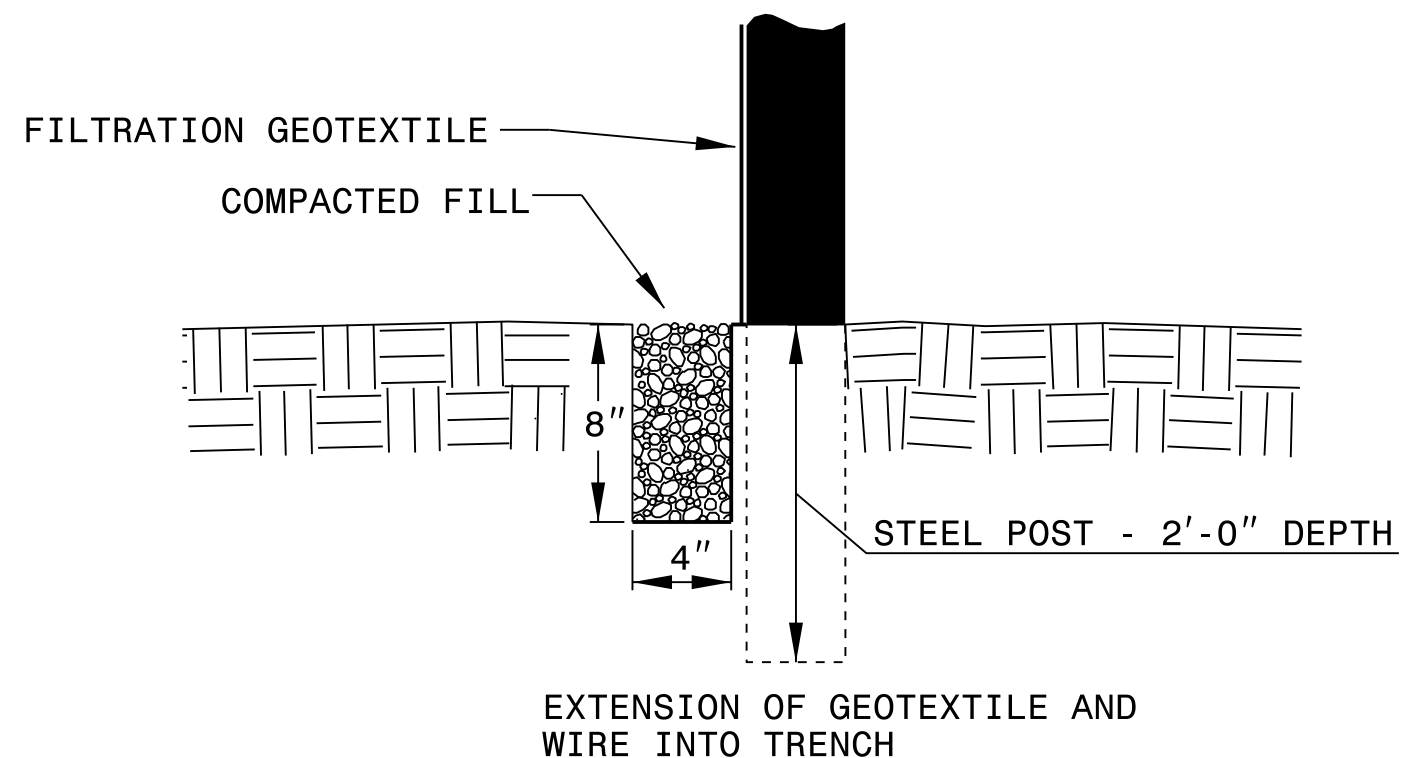
## NOTES

USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.

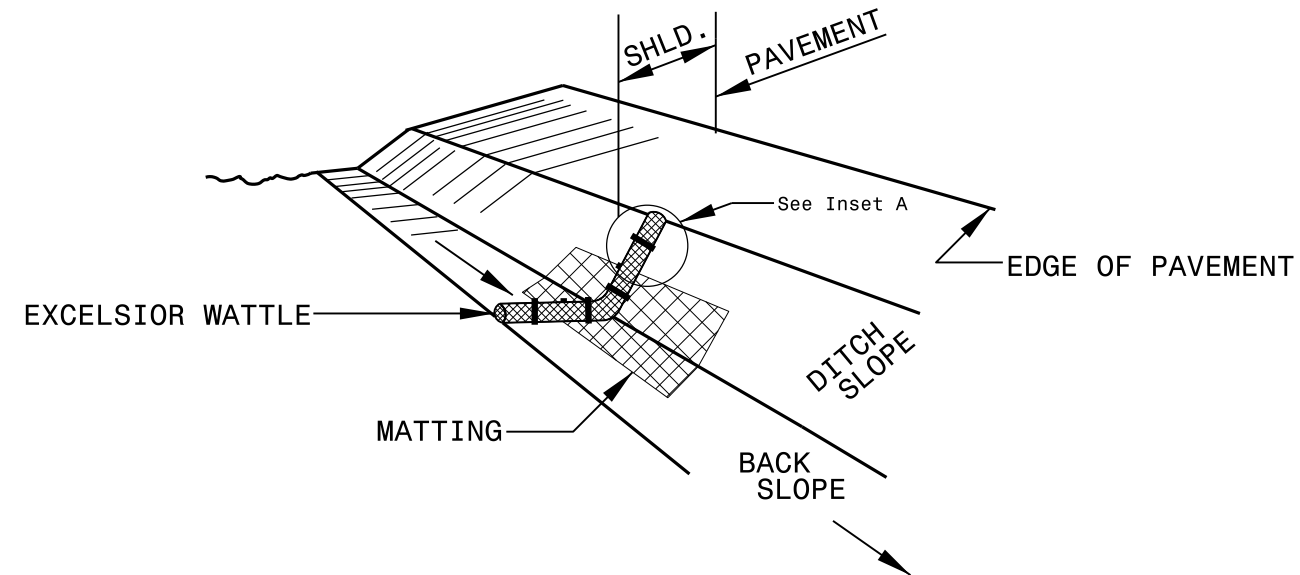
USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

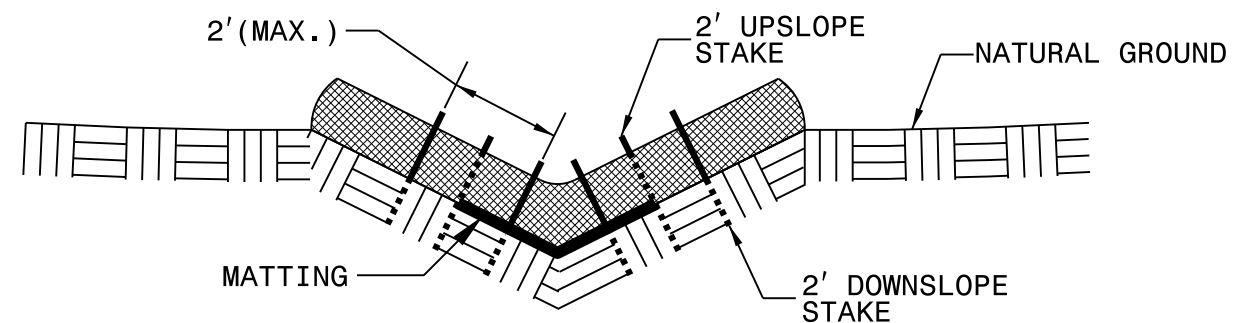
FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.



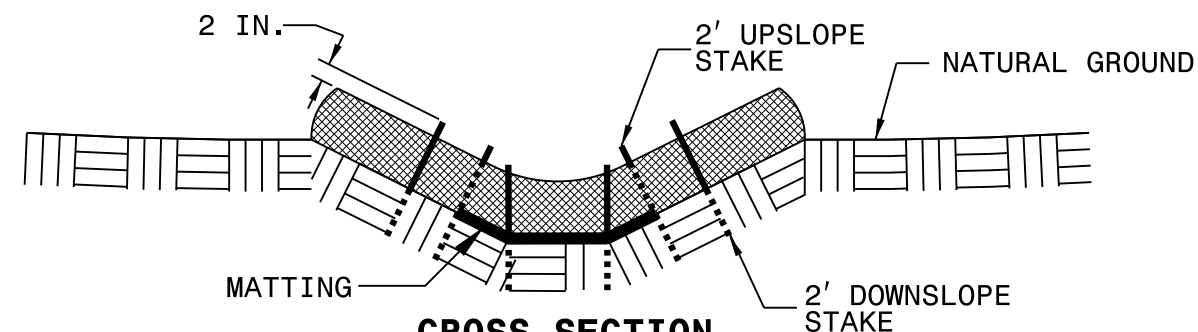
# WATTLE DETAIL



**ISOMETRIC VIEW**



**CROSS SECTION  
VEE DITCH**



**CROSS SECTION  
TRAPEZOIDAL DITCH**

## NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

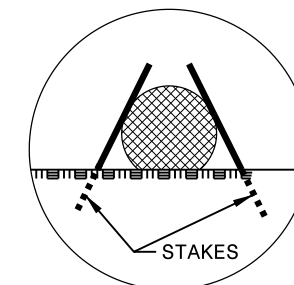
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

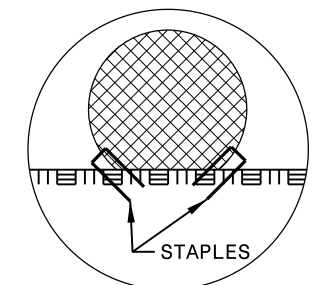
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

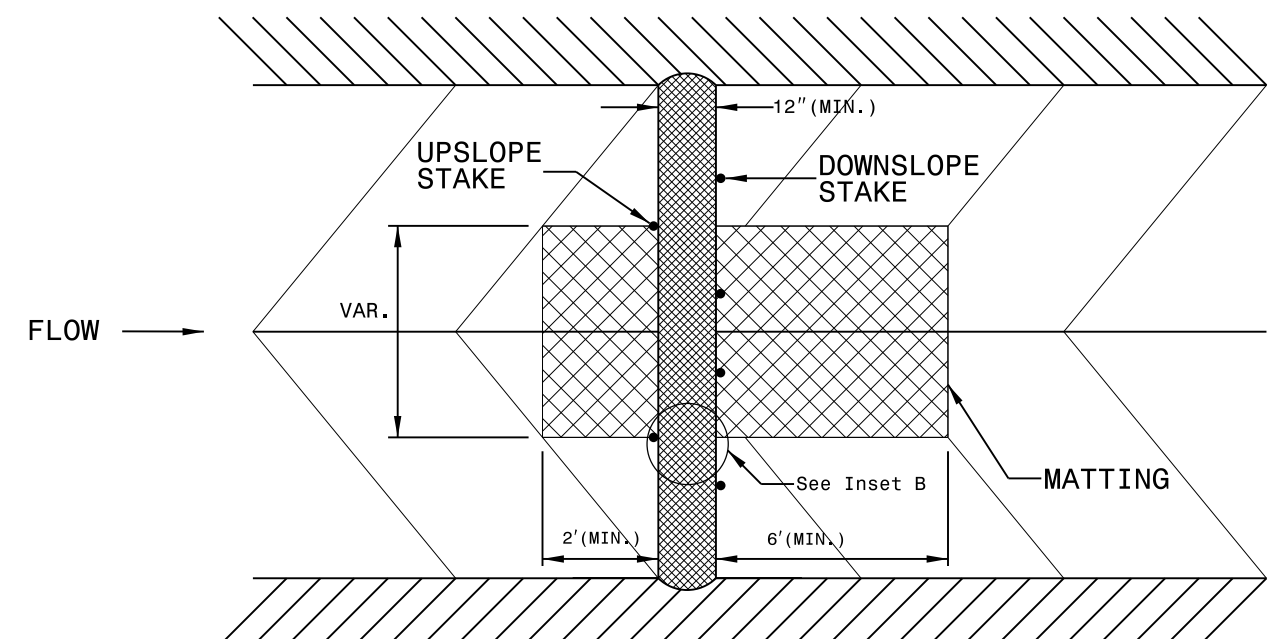
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



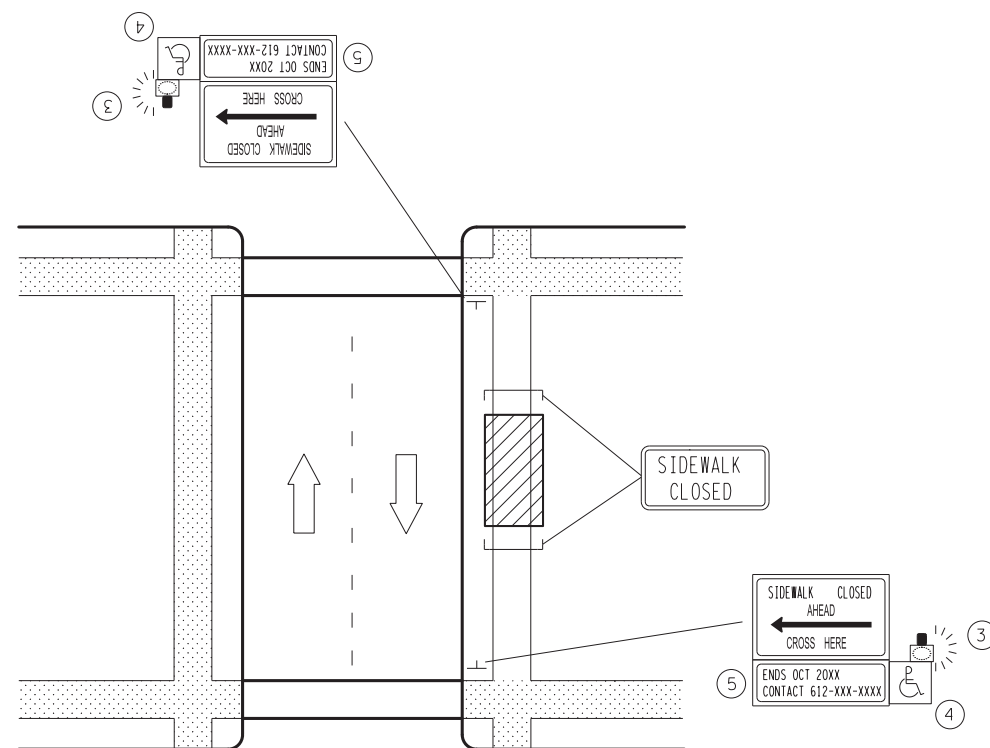
**INSET A**



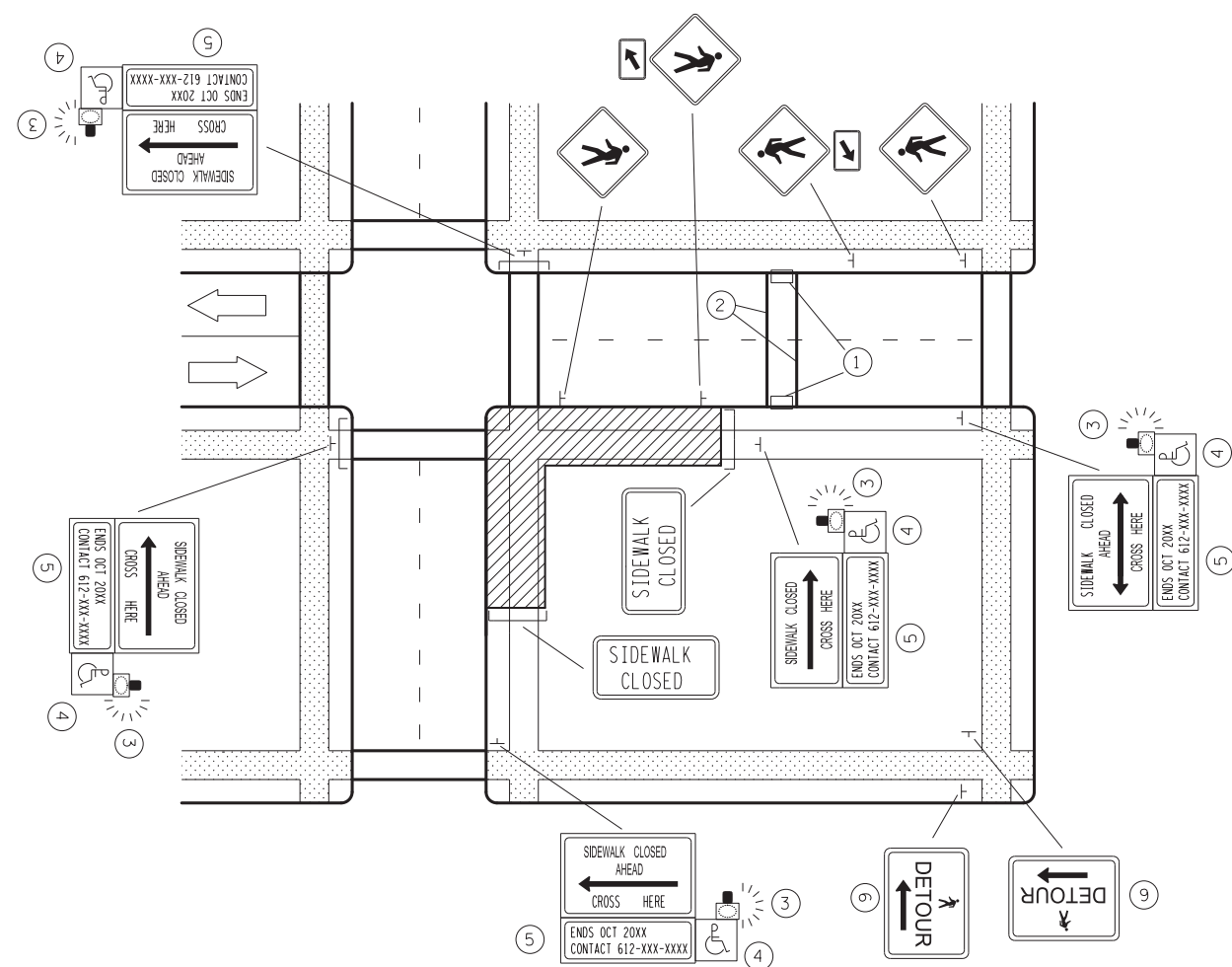
**INSET B**



**TOP VIEW**



OTHER SIDE OF STREET DETOUR  
(FOR MID-BLOCK CLOSURE)



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS  
(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

## GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE  
TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH  
EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN.  
OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC.  
STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN  
ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE detours,  
MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE  
APR. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE  
TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO TRAFFIC (BIKES, PEDESTRIANS) IS REDUCED ENOUGH TO CAUSE HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.

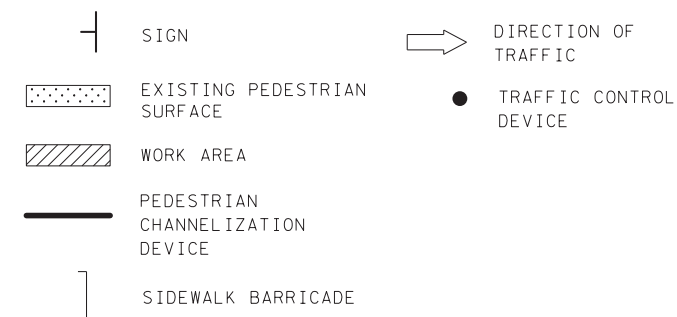
MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.

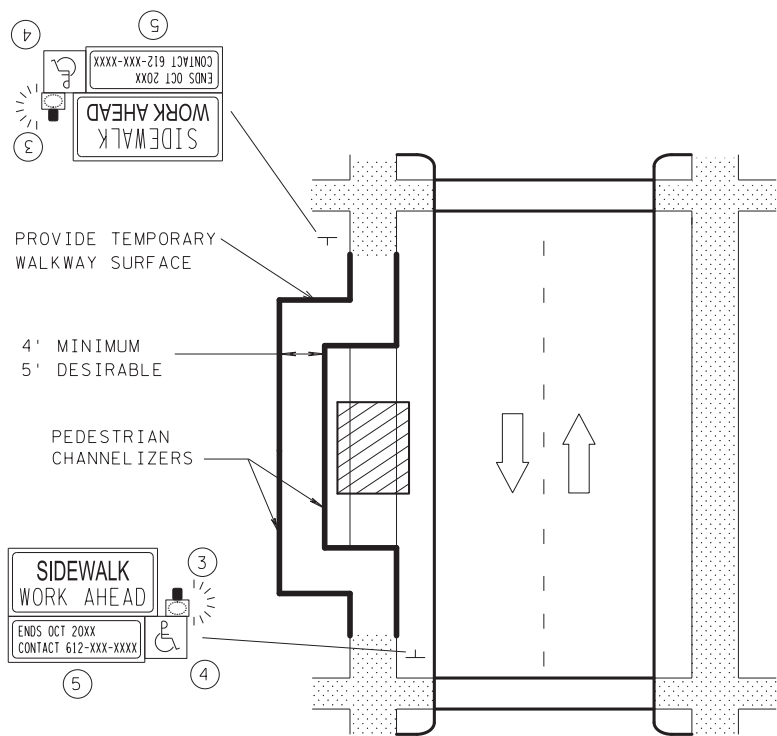
SPECIFIC NOTES

- ① TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
- ② TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ③ AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
- ④ THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOULD BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHOULD BE POSTED AND AN ALTERNATE ROUTE SHOULD BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
- ⑤ TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHOULD INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
- ⑥ PEDESTRIAN DETOUR TRAILBLAZING SIGNS SHOULD BE USED IF THE PEDESTRIAN DETOUR IS LOCATED SOMEPLACE OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.

LEGEND



TRAFFIC CONTROL  
ALTERNATE PEDESTRIAN ROUTE (APR) DETOUR

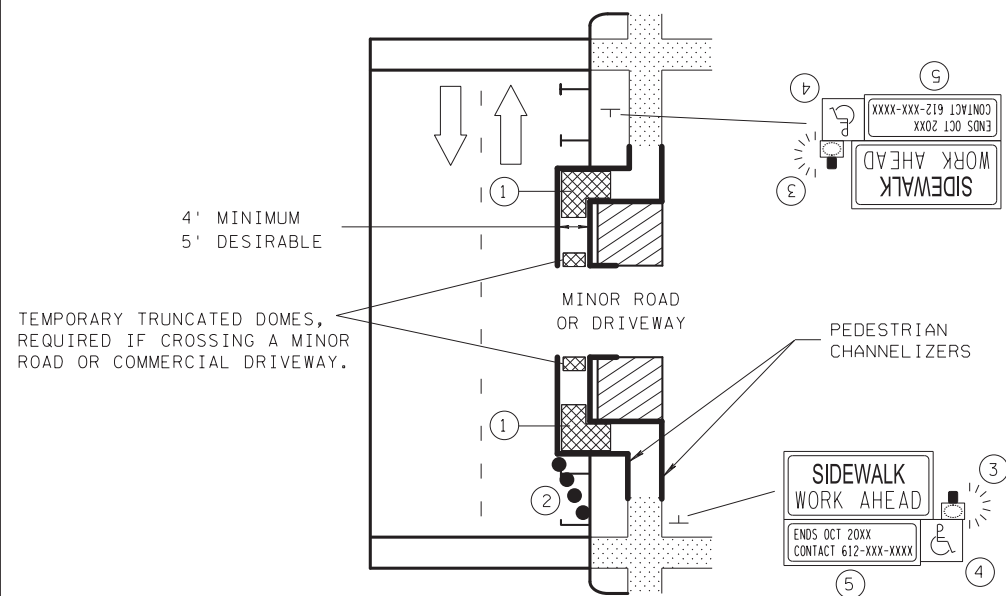


BYPASS ON ADJACENT AVAILABLE  
RIGHT OF WAY

BYPASS TYPE A

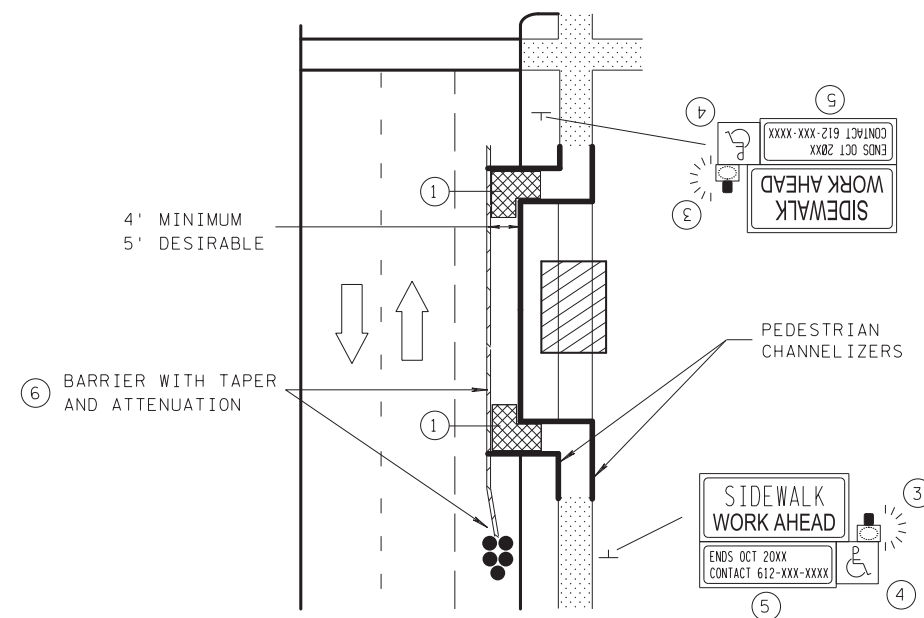
## PREFERRED METHOD TO BE USED IN CONJUNCTION WITH 2012 NCDOT STANDAND DRAWINGS

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED  
SPEED OF 45 MPH OR LESS.



SIDEWALK BYPASS USING PARKING OR  
SHOULDER ON LOW SPEED ROADWAY

BYPASS TYPE B



SIDEWALK BYPASS USING  
SHOULDER OR PARKING LANE  
HIGH SPEED ROADWAY

BYPASS TYPE C

## GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO TRAFFIC (BIKES, PEDESTRIANS) IS REDUCED ENOUGH TO CAUSE HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.

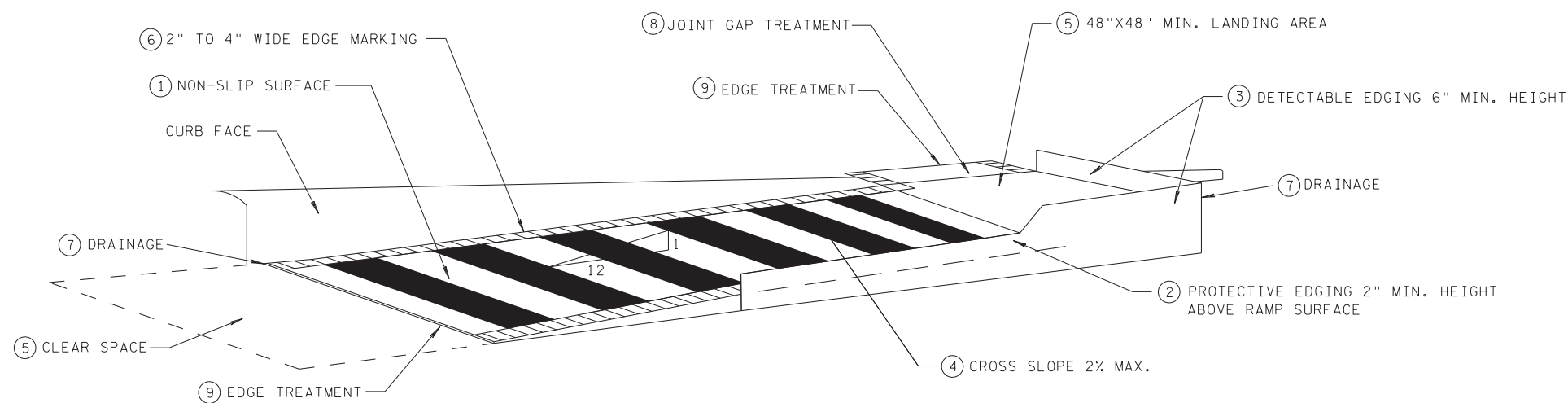
## SPECIFIC NOTES

- ① TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
- ② 5 DEVICE TAPER 25 FEET LONG, RECOMMENDED WHEN THE CLOSED AREA WAS USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ③ AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
- ④ THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOULD BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHOULD BE POSTED AND AN ALTERNATE ROUTE SHOULD BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
- ⑤ TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHOULD INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
- ⑥ SEE MN MUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

## LEGEND

|  |                                  |  |                        |
|--|----------------------------------|--|------------------------|
|  | SIGN                             |  | DIRECTION OF TRAFFIC   |
|  | EXISTING PEDESTRIAN SURFACE      |  | TRAFFIC CONTROL DEVICE |
|  | WORK AREA                        |  | SIDEWALK BARRICADE     |
|  | PEDESTRIAN CHANNELIZATION DEVICE |  |                        |
|  | BARRIER                          |  |                        |

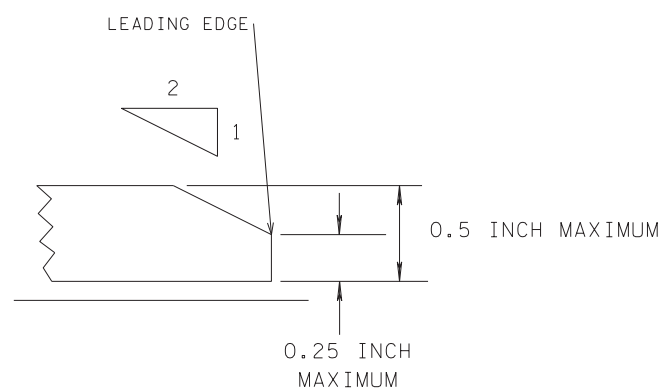
## TRAFFIC CONTROL ALTERNATE PEDESTRIAN ROUTE (APR) BYPASS



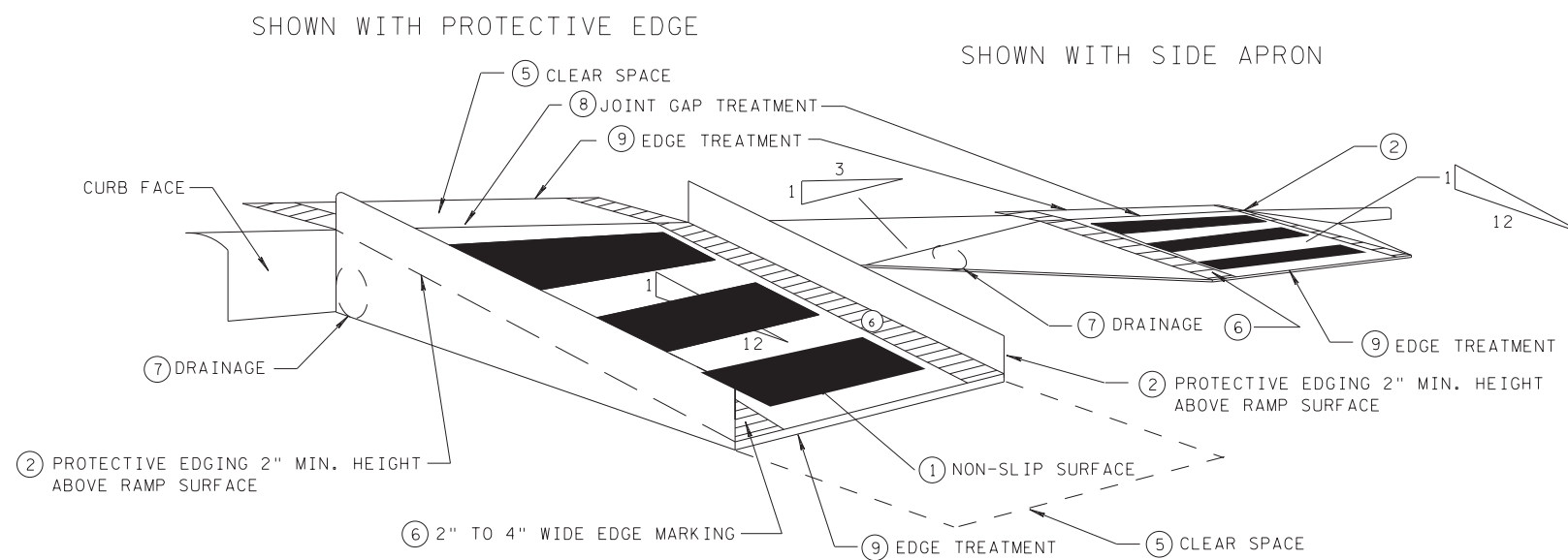
TEMPORARY CURB RAMP  
PARALLEL TO CURB

## SPECIFIC NOTES

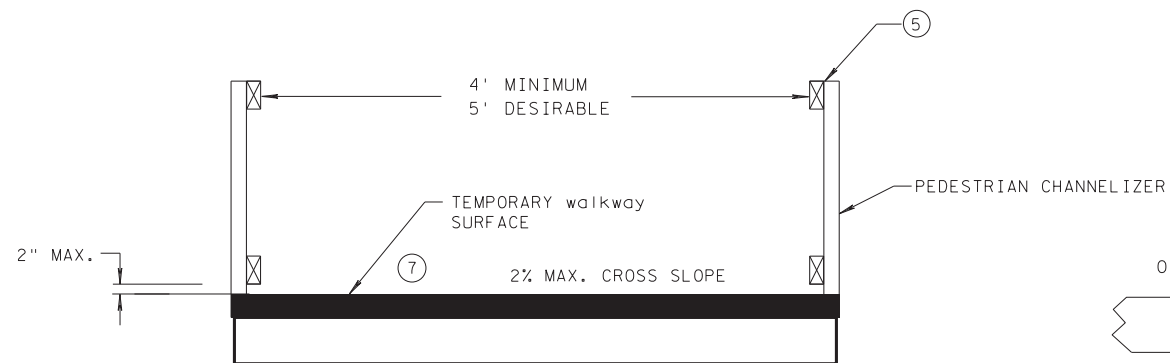
- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- ② PROTECTIVE EDGING WITH A ~~2"~~ 2" MIN. HEIGHT SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ CURB RAMPS AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- ⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- ⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- ⑦ WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- ⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- ⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.



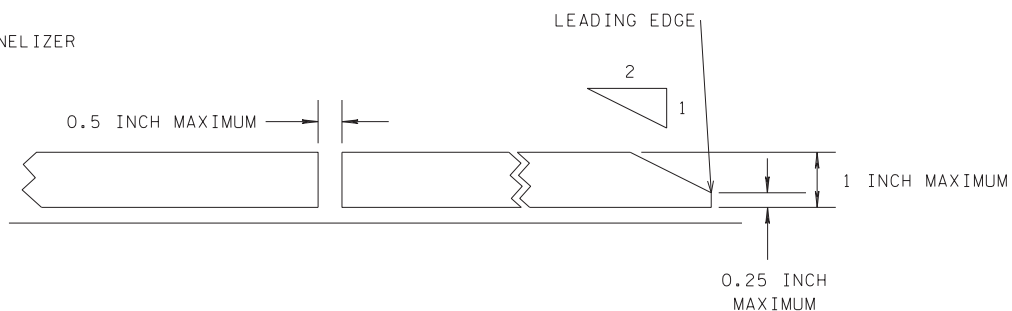
⑨ EDGE TREATMENT



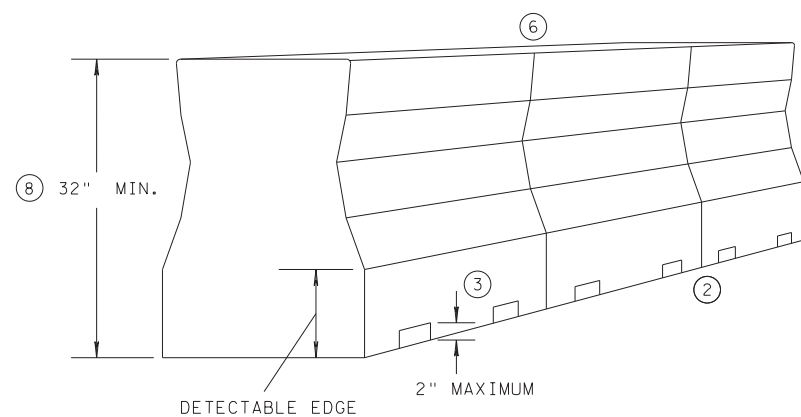
TEMPORARY CURB RAMP  
PERPENDICULAR TO CURB



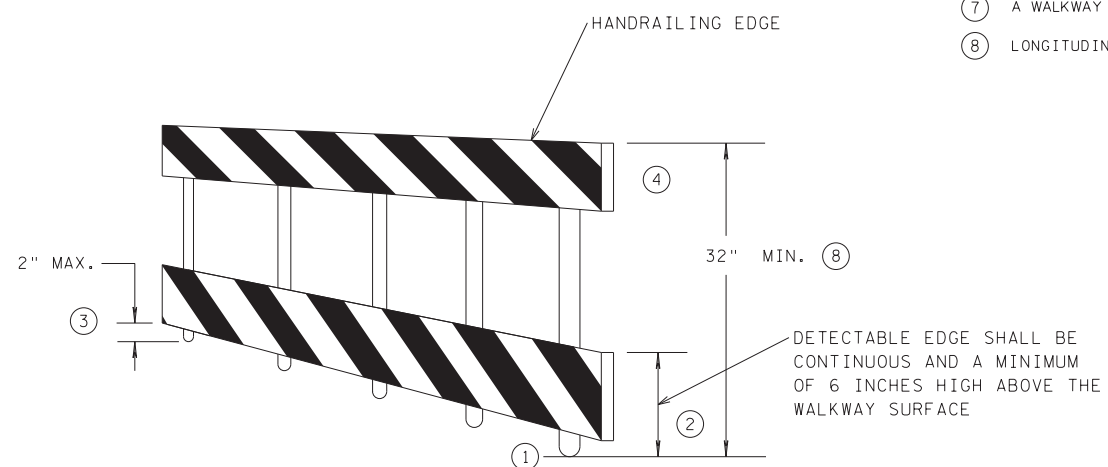
TEMPORARY PEDESTRIAN ACCESS



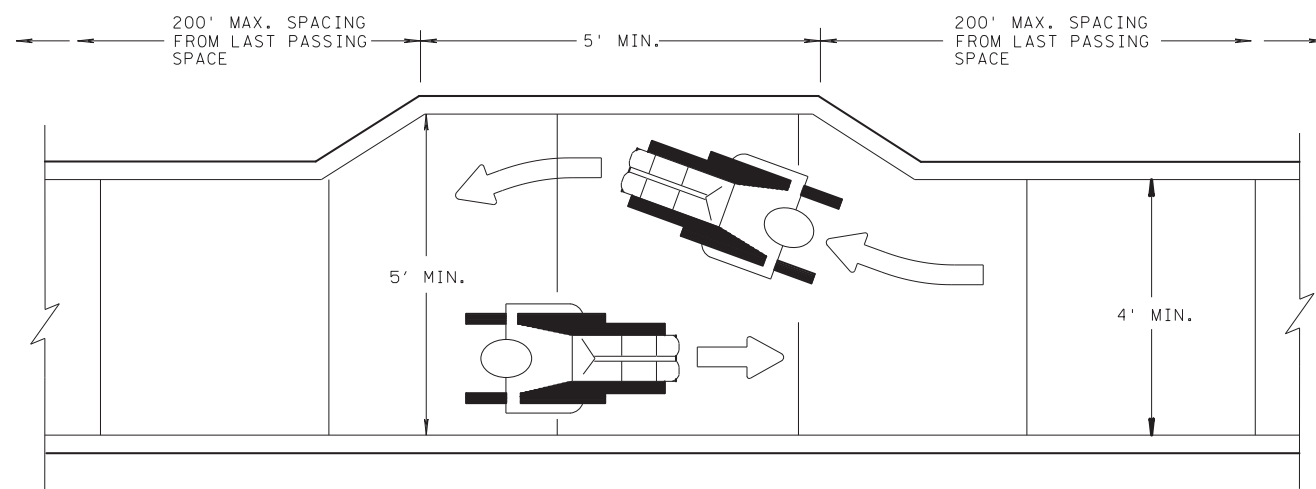
TEMPORARY WALKWAY SURFACE



PEDESTRIAN CHANNELIZER USING A BARRIER  
(MINIMUM REQUIREMENTS)



PEDESTRIAN CHANNELIZER  
(MINIMUM REQUIREMENTS)



NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL

## GENERAL NOTES

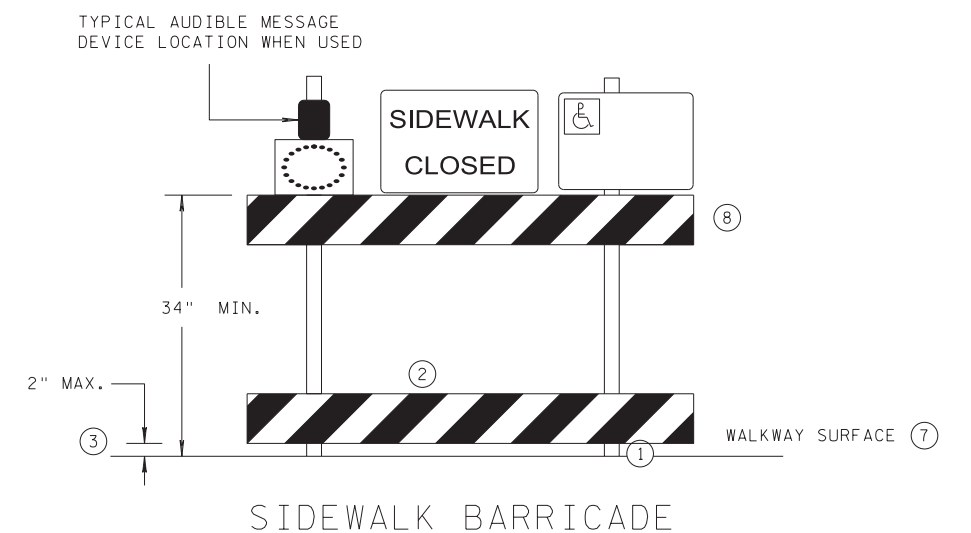
RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIERS APPLICATION.

BARRICADES SHALL BE PLACED ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE.

## SPECIFIC NOTES

- ① ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.
- ② DETECTABLE EDGES SHALL BE CONTINUOUS AND 6 INCHES MIN. HIGH ABOVE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE.
- ③ DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.
- ④ WHEN HAND GUIDANCE IS REQUIRED, THE TOP RAIL OR TOP SURFACE SHALL:
  - BE IN A VERTICAL PLANE PERPENDICULAR TO THE WALKWAY ABOVE THE DETECTABLE EDGE,
  - BE CONTINUOUS AT A HEIGHT OF 34 TO 38 INCHES ABOVE THE WALKWAY SURFACE, AND
  - BE SUPPORTED WITH MINIMAL INTERFERENCE TO THE PEDESTRIAN'S HANDS OR FINGERS.
- ⑤ ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.
- ⑥ ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE CHANNELIZED PATH.
- ⑦ A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT.
- ⑧ LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES HIGH OR GREATER.



TPAR - WALKWAY DEVICES

SUMMARY OF QUANTITIES - ORANGE COUNTY

| Inset # | Location   | Frame with Grate & Hood, Std 840.03, Type E | 2' - 6" Curb & Gutter | Concrete Curb Ramp, Type 848.06 | Remove Brick Pavers | Install Town Standard Brick Pavers | Remove and Replace Concrete Curb Ramp, Type 1 Modified | Remove and Replace Concrete Curb Ramp, Type 2A | Temporary Silt Fence | Wattle | Junction Box (Pull Box, Standard Size) | Junction Box (Pull Box, Oversized, Heavy Duty) | Temporary Traffic Control | 24" x 120 M, THERMO |
|---------|--|---|-----------------------|---------------------------------|---------------------|------------------------------------|--|--|----------------------|--------|--|--|---------------------------|---------------------|
|         |  | EA  | LF                    | EA                              | SF                  | SF                                 | EA   | EA   | LF                   | LF     | EA                                     | EA   | LS                        | LF                  |
| 1       | SR 1902 (Manning Drive) - Intersection at Skipper Bowles Road and Ridge Road |   |                       |                                 | 675                 | 675                                |  |  | 50                   | 12     |  |  | 1                         |                     |
|         | Quadrant 1   |   |                       |                                 |                     |                                    |  | 1  |                      |        | 1                                      |  |                           |                     |
|         | Quadrant 2   |   |                       | 1                               |                     |                                    | 1  |  |                      |        | 1                                      |  |                           |                     |
|         | Quadrant 3   |   | 55                    |                                 |                     |                                    |  | 1  |                      |        |  |  |                           |                     |
|         | Quadrant 4   |   |                       | 2                               |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         | TOTAL FOR INSET 1  | 0   | 55                    | 3                               | 675                 | 675                                | 1  | 2  | 50                   | 12     | 2                                      | 0  | 1                         | 0                   |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
| 2       | SR 1902 (Manning Drive) - Intersection at Paul Hardin Dr.                    |   |                       |                                 | 356                 | 356                                |  |  | 50                   | 24     |  |  | 1                         |                     |
|         | Quadrant 1   | 1   |                       |                                 |                     |                                    |  | 1  |                      |        | 1                                      |  |                           |                     |
|         | Quadrant 2   | 1   | 28                    |                                 |                     |                                    |  | 1  |                      |        |  |  |                           |                     |
|         | Quadrant 3   |   |                       |                                 |                     |                                    |  | 1  |                      |        |  |  |                           |                     |
|         | Quadrant 4   |   | 118                   |                                 |                     |                                    |  | 1  |                      |        | 1                                      | 1  |                           |                     |
|         | TOTAL FOR INSET 2  | 2   | 146                   | 0                               | 356                 | 356                                |  | 4  | 50                   | 24     | 2                                      | 1  | 1                         | 0                   |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
| 3       | SR 2048 (South Road) - Intersection at Raleigh Street                        |   |                       |                                 | 261                 | 261                                |  |  | 50                   | 12     |  |  | 1                         |                     |
|         | Quadrant 1   |   | 25                    | 2                               |                     |                                    |  |  |                      |        | 1                                      |  |                           | 118                 |
|         | Quadrant 2   |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         | Quadrant 3   |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         | Quadrant 4   |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         | TOTAL FOR INSET 3  | 0   | 25                    | 2                               | 261                 | 261                                |  | 0  | 50                   | 12     | 1                                      | 0  | 1                         | 118                 |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  |   |                       |                                 |                     |                                    |  |  |                      |        |  |  |                           |                     |
|         |  | 2   | 226                   | 5                               | 1292                | 1292                               | 1  | 6  | 150                  | 48     | 5                                      | 1  | 3                         | 118                 |